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ABSTRACT

This paper discusses the content, theoretical context, and goals of elementary art and music education. The paper focuses on statements about teaching for understanding, higher order thinking, and problem solving. Part 1 addresses the historical and theoretical context of goals and practices in art and music education. Four currents of curriculum thought in general education are examined; these currents are: (1) subject matter or academic rationalism; (2) students or developmentalism; (3) social efficiency or social adaptation; and (4) social meliorism, reconstruction, or transformation. The first part also covers the ways in which these curricular currents are and have been manifested in art and music education, and the relationship of theoretical and curriculum orientations. Part 2 addresses student understanding and critical thinking in art and music; creative thinking; the parameters of art and music as subjects of study; research findings related to human development in arts learning; and the implications of such findings for development of student understanding and critical thinking in the arts. Approximately 150 references are cited. (RH)

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Elementary Subjects Center
Series No. 8

UNDERSTANDING AND CRITICAL THINKING IN ELEMENTARY ART AND MUSIC

Wanda T. May

Center for the Learning and Teaching of Elementary Subjects

Institute for Research on Teaching
College of Education
Michigan State University

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Wanda T. May

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Center for the Learning and Teaching of Elementary Subjects

The **Center for the Learning and Teaching of Elementary Subjects** was awarded to Michigan State University in 1987 after a nationwide competition. Funded by the Office of Educational Research and Improvement, U.S. Department of Education, the Elementary Subjects Center is a major project housed in the Institute for Research on Teaching (IRT). The program focuses on conceptual understanding, higher order thinking, and problem solving in elementary school teaching of mathematics, science, social studies, literature, and the arts. Center researchers are identifying exemplary curriculum, instruction, and evaluation practices in the teaching of these school subjects; studying these practices to build new hypotheses about how the effectiveness of elementary schools can be improved; testing these hypotheses through school-based research; and making specific recommendations for the improvement of school policies, instructional materials, assessment procedures, and teaching practices. Research questions include, What content should be taught when teaching for conceptual understanding and higher level learning? How do teachers concentrate their teaching to use their limited resources best? and In what ways is good teaching subject matter-specific?

The work is designed to unfold in three phases, beginning with literature review and interview studies designed to elicit and synthesize the points of view of various stakeholders (representatives of the underlying academic disciplines, intellectual leaders and organizations concerned with curriculum and instruction in school subjects, classroom teachers, state- and district-level policymakers) concerning ideal curriculum, instruction, and evaluation practices in these five content areas at the elementary level. Phase II involves interview and observation methods designed to describe current practice, and in particular, best practice as observed in the classrooms of teachers believed to be outstanding. Phase II also involves analysis of curricula (both widely used curriculum series and distinctive curricula developed with special emphasis on conceptual understanding and higher order applications), as another approach to gathering information about current practices. In Phase III, test models of ideal practice will be developed based on what has been learned and synthesized from the first two phases.

The findings of Center research are published by the IRT in the Elementary Subjects Center Series. Information about the Center is included in the IRT Communication Quarterly (a newsletter for practitioners) and in lists and catalogs of IRT publications. For more information, to receive a list or catalog, or to be placed on the IRT mailing list to receive the newsletter, please write to the Editor, Institute for Research on Teaching, 252 Erickson Hall, Michigan State University, East Lansing, Michigan 48824-1034.

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Abstract

This paper represents one of seven review/synthesis papers prepared to help frame the research program of the Center for the Learning and Teaching of Elementary Subjects. Described are the goals of elementary art and music education in historical and theoretical context and the parameters of art and music content. Both arts areas have debated about what counts as arts knowledge within their disciplinary areas, the relation of visual arts and music to other arts, and the place of the arts in the school curriculum and society at large. Both arts areas have focused primarily on exploring and describing: (a) students' developmental stages, performance abilities, talent, and creativity; and (b) student response and perception of art and musical forms. Traditionally, there has been little application of these findings to teaching for conceptual understanding and critical thinking, however. Appreciation, aesthetics, and criticism are discussed in the literature as cogent dimensions of arts learning. However, there is little evidence that these areas have been emphasized in teacher preparation programs or K-12 practice. Until recently, the goals most emphasized in actual practice have been production (making art) and performance (making music), with little attention to developing students' conceptual understanding or critical thinking.

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UNDERSTANDING AND CRITICAL THINKING IN ELEMENTARY ART AND MUSIC

Wanda T. May[1]

Introduction

This is one of a set of seven reports being prepared for Study 1 of Phase I of the research agenda of the Center for the Learning and Teaching of Elementary Subjects. Phase I of our work calls for surveying and synthesizing the opinions of various categories of experts concerning the nature of elementary-level instruction in mathematics, science, social studies, literature, and the arts, with particular attention to how teaching for understanding and for higher order thinking and problem solving should be handled within such instruction. Study 1 of Phase I calls for review of the literature in educational psychology, cognitive science, and related fields on teaching for understanding and for higher order thinking and problem solving, as well as the literature on these topics as they are discussed by curriculum and instruction experts within the context of teaching particular school subjects. The present paper focuses on statements about teaching for understanding and for higher order thinking and problem solving in art and music that have been advanced by the leading scholars and organizations concerned with elementary-level art and music education.

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[1]Wanda May, assistant professor of teacher education at Michigan State University, is a senior researcher in the Center for the Learning and Teaching of Elementary Subjects. For their helpful comments and reviews of this paper and earlier drafts, the author gratefully acknowledges Jere Brophy and Ralph Putnam. The author also wishes to thank Sandra Gross and Diane Smith for their editorial assistance and June Smith for manuscript preparation.

Part 1 of this paper addresses the historical and theoretical context of goals and practice in art and music education. This section will examine four currents of curriculum thought or competing interests in general education, how these curricular interests were/are manifested in art and music education in particular, and the theoretical context of these curriculum goals. Part 2 will address student understanding and critical thinking in art and music, creative thinking, the parameters of art and music as subjects of study, and research findings related to human development in arts learning and the implications of such findings for developing student understanding and critical thinking in the arts.

The exploration of conceptual understanding and critical thinking requires the examination of epistemology or cognition in the arts. It also requires examining art and music as disciplinary areas, how these areas are defined by arts experts and educators, the evolution of these subjects in socio-historical context in terms of educational purposes and practices, and the theoretical underpinnings of espoused goals in the arts. Although such a contextual understanding may be lacking about many subjects in the elementary school curriculum, I am assuming that most readers will be less familiar with the arts and their potential to be empowering ways of knowing. Our limited understanding occurs by default for several reasons; that is, the arts' marginality in the school curriculum, lack of professional discourse across perceived disciplinary boundaries, and our few encounters--as young learners or adults--with the arts as provocative areas of inquiry and intellectual engagement. If all you can conjure up as "meaningful learning" in your years of elementary art and music are making a salt map of Michigan or an Indian headband in social studies, cutting out prescribed patterns for a jack-o'-lantern, illustrating a story when you finished your "work," or performing in a spring musical, then

your elementary art experiences are no more memorable than mine. With so few encounters with the arts--and so many of the "make-and-do" kind, there are many assumptions to unravel about understanding and critical thinking in the arts. Therefore, we must explore how assumptions are developed, maintained, or changed by reexamining the goals of education and the purposes of arts education in particular.

PART I--CONTEXT OF GOALS IN ART AND MUSIC EDUCATION

Deciding what should be taught and why is a perennial curriculum issue dating back to Plato. This decision not only influences what students will have an opportunity to learn in the total school curriculum, but also what and how they will learn within disciplinary areas. Interests within disciplinary areas and tension between subject areas regarding status, territory, and resources reflect the larger interests and concerns of society (Goodson, 1987; Popkewitz, 1987). These interests cannot be reduced to a binary tug-of-war such as progressivism vs. traditionalism. The purposes of school and perceptions about what knowledge is of most worth represent multiple interests that coexist in tension and time, with particular interests receiving more or less attention at different times. When an interest reappears as a concern deserving more serious attention, history is not merely "repeating itself." There are subtle changes in the amorphous evolution of this interest. Further, when school subjects are examined side by side in historical context, goals among subject areas are more similar than dissimilar because of the cultural embeddedness of all school subjects.

Four Currents of Curriculum Thought

Kliebard (1985, 1986) provides a helpful framework for understanding multiple goals in historical context, no matter the disciplinary area. These goals can be visualized from a bird's-eye view as currents of varying widths in

a river of time. The wider the current, the more emphasis and attention this interest received during a given period. Figure 1 is my interpretation of these "currents" or emphases over time using Kliebard's metaphor and the interpretations of various educational historians and curriculum writers (Church & Sedlak, 1976; Cremin, 1977; Eisner & Vallance, 1974; Franklin, 1986; Gay, 1980; Ornstein & Levine, 1985; Popkewitz, 1987; Schubert, 1986; Spring, 1986; Tanner & Tanner, 1980; Tyack & Hansot, 1984; Walker & Soltis, 1986).

Kliebard (1985, 1986) presents four currents of curriculum thought or interests: (a) subject matter or academic rationalism where the primary interest is in teaching the "three Rs" and subjects traditionally defined by humanist educators that transmit the "best" works of Western civilization; (b) students or developmentalism and interest in the natural "unfolding," personal integrity, and psychological health of learners; (c) social efficiency or social adaptation where the primary interest is in social stability, preparing students for the world of work, and "fitting" or adjusting students to the existing social order; and (d) social meliorism, reconstruction, or transformation, where the primary interest is in questioning the social order or status quo and preparing students to be able to locate and solve pressing social problems democratically, equitably, and creatively. This interest envisions schools as institutional levers of social reform and change.

Focus on Subject Matter

Interest in academic subject matter, disciplinary knowledge, or academic rationalism has a long tradition, and this interest was evident particularly during the faculty psychology or mental discipline movement before the turn of the century (i.e., certain subjects and strategies were perceived important because they "exercised the mind," and the resulting facility of mind was

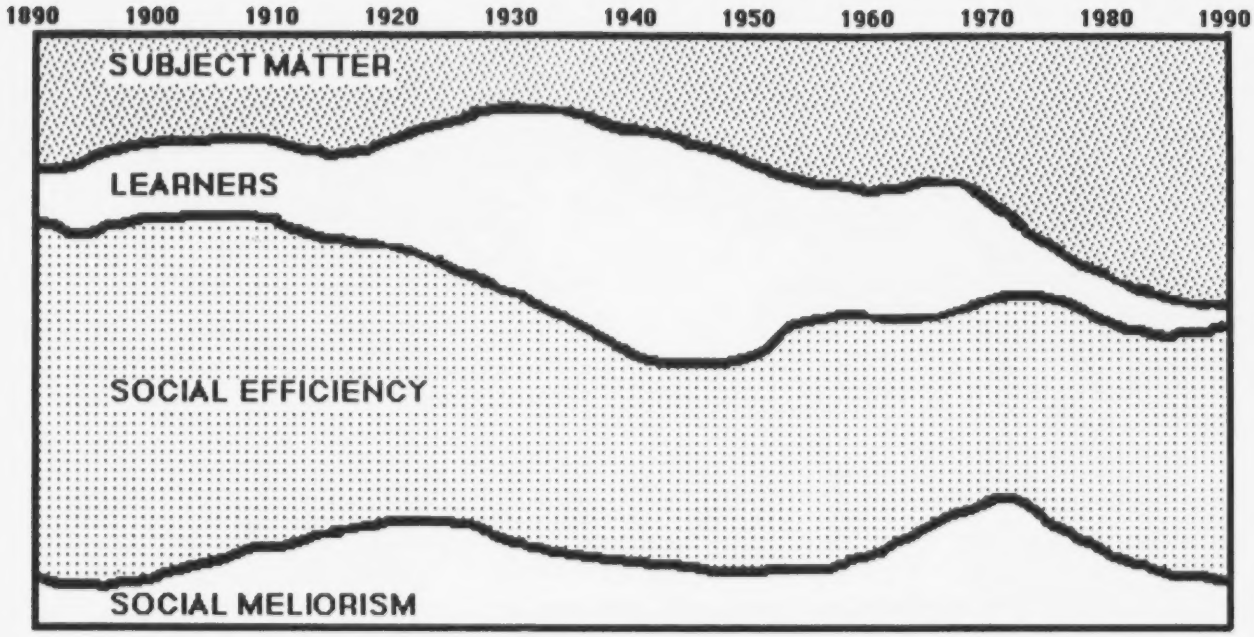


Figure 1. Four currents of curriculum thought over time.

perceived as transferable to other subjects and life situations). The subject-matter focus is evident in periodic debates over teaching the finest and best representations of Western civilization or the "classics," that is, the "Great Books" program or the current debate in higher education about what counts as legitimate content in humanities and liberal arts programs. The subject-matter focus is obvious in the "structure of the disciplines" movement in the late 60s and 70s and the development of curriculum by disciplinary experts rather than educators. Emphasis on the "three Rs" or the "basics" is a sustained curricular interest in subject matter. Currently, in teacher education reform proposals, there is increased interest in the development of disciplinary knowledge, subject-matter expertise, and conceptual understanding of the various disciplines for both teachers and learners. In such reform proposals, there is renewed interest in students encountering liberal arts subjects before professional studies. The "back-to-basics" emphasis in K-12 public schools since the conservative 70s and reformulating graduation requirements by increasing credits in academic subjects also reflect a subject-centered interest.

Focus on Learners

Emphasis on students, human development, and the individual is a persistent curricular interest. The child-study movement in the late 1800s funneled renewed interest in cracking the code of human development or the natural order in which children pass through stages of development toward adult sophistication. Although sometimes awkwardly linked to "cultural epochs," later forms of this interest are reflected in attempts to discover, utilize, and capitalize upon students' interests, their existing conceptions, and their penchant for play and activity through such instructional approaches as the project method, activity curriculum, and experience curriculum. In this orientation, the student is the focal point of the curriculum as opposed to subject matter, rote

memorization, drill, or molding either the curriculum or learner toward prescribed adult roles.

While not replacing standard subject-matter organization, this movement had some impact on curriculum selection and organization and on the pedagogical strategies used in reading, social studies, and the visual arts. The progressive education movement in the 30s was a mixed bag of interests emphasizing the learner. Student relevance reemerged as a curriculum emphasis during the late 60s and the school protest movement. Current interest in accessing, understanding, and using students' knowledge, interests, and experiences and actively engaging students in their learning reflects a hybrid interest in the student and subject matter.

Focus on Social Efficiency

Interest in social efficiency by far has been the most pronounced, persistent, socially conservative, and antiacademic curriculum emphasis in the 20th century (Kliebard, 1985). At the turn of the century, social efficiency was an intense American interest for a variety of reasons and/or influences, a few of which are global economic competition, mass immigration, a population explosion, industrialization, urbanization, increased differentiation and decreased opportunities by social strata and status with a rising middle class, advances in the natural sciences, and the application of natural science theories and research methods to the exploration and explanation of psychological and social phenomena. Proponents of this interest, long ago and now, seek a strong linkage between what is studied in school and the everyday lives and occupations of adults. From this perspective, a major part of the opposition to the standard academic curriculum is that subjects such as foreign languages, advanced mathematics, physics, literature, or the fine arts are perceived as useless and

irrelevant to daily life activities. Thus, a strong theme in social efficiency is the utility of school subjects.

Interest in social efficiency is best understood in terms of how it relates to industry's need for efficiency and quality control in a competitive market. This technical-control interest was popular during the industrial period, and it continues to be popular in business, service industries, and technological contexts. Efficiency, quality control, management by objectives, training manuals that distinguish "needs to know" from "nice to know," competition, and profit are interests common to this theme. Social efficiency also is attractive in its appeal to social stability in a society when traditional mechanisms for social control appear to lose their potency. School is perceived as a place where students can be prepared to assume a specific social role rather than as an institution for intellectual development. "By conceiving of the curriculum as a vehicle for training individuals to perform effectively in their assigned roles, social efficiency as a curriculum doctrine [holds] out the promise of an orderly and well-run society" (Kliebard, 1985, p. 35).

Today, as earlier, the social efficiency interest is exhibited in educational goals and practices that emphasize (a) ability grouping and tracking to make teaching large numbers of diverse learners more efficient, (b) preparing students for the world of work by "trimming the frills" from the curriculum and teaching only "the basics" or skills deemed important for work, (c) policy-making that emphasizes curriculum alignment through top-down management and control of the curriculum through standardized and minimum competency testing and other forms of accountability, (d) making cross-cultural comparisons of student performance and achievement to explain a country's failure to maintain a competitive edge in a global economy, and (e) defining "quality" and "excellence" primarily by quantifiable "degree" or measurement.

Focus on Social Meliorism/Reconstruction

An interest in social reconstruction, transformation, or meliorism was reflected in the early part of this century during the progressive era, post-World War II, and during the 60s. Rather than the child-study movement's interest in "leading children," Albion Small in 1896 proposed that educators perceive themselves as "makers of society." A colleague of John Dewey, Small suggested that the "developing member of the society [should] become analytically and synthetically intelligent about the society to which he belongs" (cited in Kliebard, 1985, p. 40). Small argued that students must see "the whole" and "relationships" if they are to derive any meaning from the abstractions that subjects presumably represent. The interests of social reconstructionists differ from academic rationalists and mental discipline proponents with regard to teaching and learning school subjects. Students are to be assisted in seeing relationships among key ideas and disciplines as well as how such knowledge could be applied to solving social problems and improving society, rather than simply "fitting into" or adjusting to an existing social order.

Small, Dewey, Kilpatrick, Counts, and several other leaders reflected this interest by perceiving schools as a potential lever for social progress, reconstruction, and reform. This interest was most prominent during the 30s and the Great Depression, but there were few notable successes in reforming educational practice in a significant, lasting way. This interest reemerged in the late 50s, 60s, and early 70s during the protest era of civil rights, the war on poverty, the women's movement, and federal legislation aimed at providing equal access and opportunity (integration, special education, bilingual education, Headstart, gifted education, etc.). Today, this interest is reflected in concerns about power, access, and equity related to gender, ethnicity, and socio-economic status; tracking and grouping students as the institutional reproduction of social inequities; or ignoring the needs of disenfranchised and

"at-risk" students. This interest also is reflected to some degree in reform proposals that recommend restructuring a highly bureaucratic and entrenched institution such as school in ways that grant more power and participatory decision making to teachers regarding personnel, professional development, budget, curriculum, and scheduling.

Summary of Competing Interests

Social efficiency proponents see the traditional, liberal arts, academic curriculum as useless (except to a minority of students), urge adoption of a curriculum tied to utility, and envision this emphasis as a way to promote social order and stability in times of perceived social disintegration or loss of a competitive edge in the world's marketplace. The approach is pragmatic in the sense that it attempts to make academic study useful and applicable to the "real world" as defined by adult work and roles. Developmentalists or *learner* proponents see the academic curriculum as contrary to the natural order of child development, to students' interests and inclinations for active learning, or to individual interests and abilities among learners. Rather than adapting children to predetermined future adult roles, the child's present status is the key curricular focus among learner proponents. The selection of content and organization of subject matter is dependent upon the learners' expressed interests, and teachers are to facilitate these interests by "bringing" subject matter to the students when such knowledge would help them to explore their interests with greater facility.

Social meliorist proponents see traditional approaches to an academic curriculum as lacking in social purpose, concern, and responsibility. Their interest is in building a curriculum around social questions that afford future citizens the opportunity to address--intelligently and ethically--various problems faced by society and all its members. Thus, the curriculum would be

problem-centered and students grouped cooperatively to actively address such concerns. This approach is pragmatic in the sense that it is useful preparation for the future; students are to be sensitized to social problems and educated so as to make them adept at locating and solving social problems in ways that foster "the common good." Thus, the teaching and learning of subject matter should help students in this regard, as well as help them see relationships of ideas within and among disciplines and how such knowledge can be used to the benefit of all. Meanwhile, the *subject-centered* interest "has proved more resilient than many reformers expected" (Kliebard, 1985, p. 43). It has been easier to maintain and reconstruct existing subjects than to replace them or transform institutions and society at large.

Historical Purposes and Practices in the Arts

Given the above discussion as a contextual background, the evolution and nature of goals and practices in the arts can be better interpreted. As in all disciplinary areas of the curriculum, the purposes for teaching and learning the arts have evolved relative to a number of social forces and cultural influences (Birge, 1966; Colwell, 1986; Efland, 1983; Hamblen, 1984; Hoffer, 1983; Kern, 1987; Wolff, 1978; Wygant, 1983). Freedman (1987) identifies four goals in the arts that are historically interwoven: (a) developing technical skills, (b) transmitting the culture and using leisure time wisely, (c) molding the moral citizen who also has good taste, and (d) promoting individualism and creative self-expression. I will add a fifth: (e) understanding the arts as disciplines. Freedman's (1987) goals overlap a great deal, and most of these reflect Kliebard's (1986) social efficiency theme.

Developing technical skills, transmitting the culture, using leisure time wisely, molding the moral citizen, and developing good taste (narrowly defined) are themes most closely related to social efficiency. Promoting individualism

and creativity may be a pronounced goal in the arts (in relation to other subjects). However, it most closely relates to Kliebard's learner theme, particularly during the child study movement, the era of testing and measurement (intelligence, talent, and creativity), the progressive era, post-World War II, and the 60s protest movement. Visual art has emphasized and sustained the learner-focused goal much more than music; however, both areas have emphasized the therapeutic value of the arts for decades.

Developing good taste also may be unique to the arts, as this refers to aesthetics and appreciation in its broadest sense. However, until recently, "good taste" was narrowly defined in terms of utility and environmental beautification of one's home or community during hard economic times, the struggle of a rising middle class to have access to the "high culture" of the privileged, and the unproblematic study of the "great works" of Western civilization and the moral lessons that could be derived from studying these art forms.

Understanding the "structure" of the arts disciplines emerged as a prominent goal during curriculum reform in the 60s in concert with the more familiar reforms in science and math. With more abundant federal and private funding, many disciplinary experts took a hard look at their disciplines and how these were expressed in subject-matter content and instructional methods in schools. This theme most strongly represents the subject interest identified by Kliebard (1986), as does transmitting the culture when the focus of instruction is on art reproductions or musical works as objects of study.

Most often, the arts have been used as a vehicle or service to other more prominent educational goals. There is very little evidence of the social meliorist goal in the arts, except perhaps during post-war periods and the late 60s and early 70s when the curriculum included the study and production of protest literature, popular art or music, attention to multicultural issues and equal rights, the use of newer media (television and film) to understand

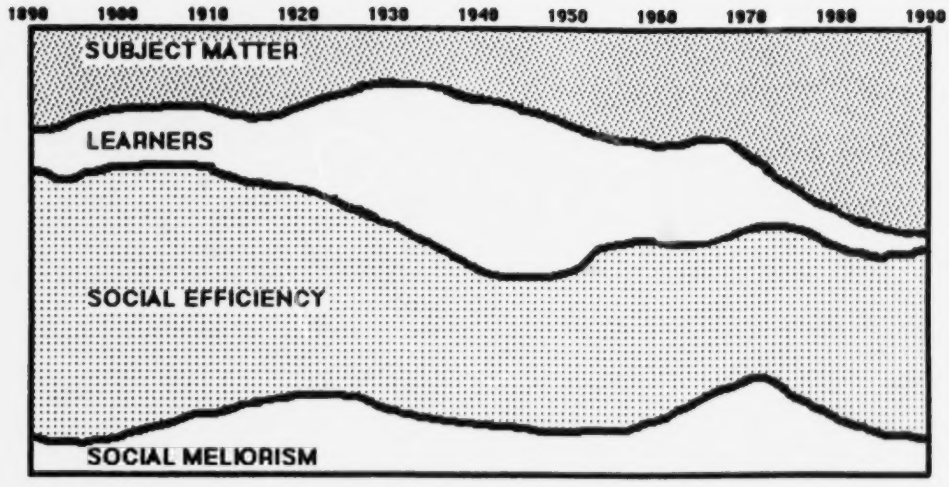
human/social issues, and more freedom of expression aimed at making social and political statements focused on addressing the social ills of the times.

Figure 2 compares art and music curriculum trends with Kliebard's (1986) four currents of curriculum thought. Art and music differ from this larger picture in terms of less early emphasis on the subject theme (compared to academic subjects) and more emphasis on the student theme from the late 20s to early 50s. Both areas reflect a declining interest in the student theme and creative expression. Furthermore, visual art "bulges" more and is sustained longer on the student theme in comparison to music. More recently, visual arts education has emphasized the disciplinary nature of the subject more than has music education. Music education traditionally has reflected a greater emphasis on social efficiency and adaptation than has art education, and both areas shared a comparable social-meliorist interest during the late 60s and early 70s.

Social Efficiency Themes in Art and Music

Since social efficiency is the most pronounced educational goal, it deserves serious attention when one is proposing to emphasize conceptual understanding and critical thinking in the arts. Critical thinking in the arts is antithetical to the goals and practices inherent in the social efficiency theme.

The development of technical skills. One persistent goal in both art and music education is developing technical skills. During the mid- and late 1800s with the expansion of industry, artistic skills were geared toward the labor market. After the Civil War, public schools were asked to meet the crisis of economic competition with Europe. "American industrialists began to see that their manufactured goods could not compete in international trade with the products of Europe" (Efland, 1984, p. 267). In a petition to the Massachusetts



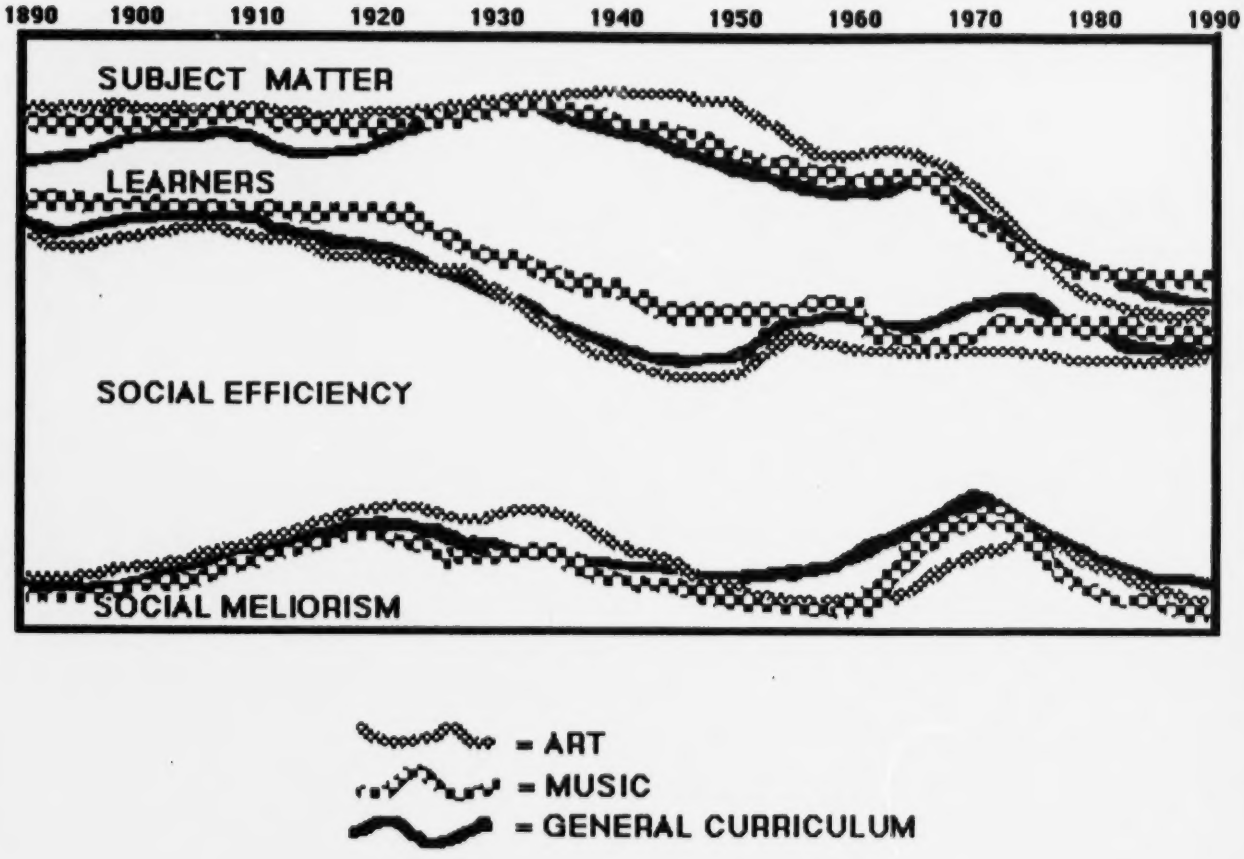


Figure 2. Comparison of art and music trends to general curriculum trends.

legislature, industrial leaders noted that Europe provided free instruction in drawing for their workers.

Manual drawing or industrial design education was created to support the labor market not only by teaching students how to draw realistically but also by reinforcing discipline, time management, and other work-ethic characteristics. "Drawing in school was to train the eye, the hand, and the mind . . . for the rigors of industrial work," and this was emphasized in elementary as well secondary schools (Freedman, 1987, p. 66). Two-dimensional examples and geometric forms were copied for disciplined thinking in step-by-step lessons (Hamblen, 1984). The influence of Walter Smith's technical approach to drawing in the late 1800s resulted in children copying examples from the chalkboard. Even as late as the 1940s, children were "commonly rewarded for accurately rendering posted drawings" (p. 113).

During this period, music education focused more on a highly sequenced approach, from simple to complex ideas with incessant exercise and drill (Shehan, 1986). Although the underlying Pestalozzian theme of extensive sensory experiences and "learning by doing" were pronounced, the nature of instruction reinforced behavior conducive to the work world. Extrinsically, music was seen to assist in the teaching of reading, to aid in discipline, and to be an important part of the exercises of religious devotion; intrinsically, music education was seen to be an intellectual art that had "physical benefits" (Colwell, 1986, p. 33). Despite the espoused goals of the times, art and music education can be described as emphasizing drill and practice, whether copying a picture from the board or learning to read musical notation and practicing scales.

During the first half of the 20th century, both visual arts and music education focused much attention on talent and developing tests to assess intelligence, ability, and talent (Brandt, 1988; Clark & Zimmerman, 1984; Gardner & Grunbaum, 1986; Madsen & Prickett, 1987; Serafine, 1986). This attention

paralleled interest in the nature of intelligence and the development of intelligence tests in the nature-nurture debate. The tests in music were used primarily to identify those secondary-level students who would benefit most from music instruction when funding for music programs was limited and spending could accommodate only the talented few. In art (in the 30s), much interest was exhibited in the relationship between mental ability and performance on drawing tests. Much of this increased emphasis on technical skills, talent, and intelligence emerged from the needs of the military to select and sort recruits into appropriate jobs or training programs. Likewise, task analysis in the early 20th century was popular in industry for selecting workers and training them for specific jobs. Much of this technical focus was translated into curriculum development and selecting/organizing content through task analysis by Bobbitt (1924) and others.

Developing technical skills remains a prominent practice in art and music education, although it may not be espoused as a prominent goal. Students still "copy" a teacher's model; cut out or assemble patterns, crafts, or other predetermined art objects; explore a variety of media (supposedly to develop technical skills); learn to play a xylophone or recorder through mimicking, memorization, practice, and reading notation of familiar songs; and perform for school assemblies and programs. As planned and presented, such activities require little problem solving or critical thinking. Although this focus may be enjoyable to students, it mimics and reinforces the work ethic by emphasizing conformity, following directions, routine, and producing a tangible product.

Thus, art and music come to be perceived more as the making of something than as viewing, listening, feeling, thinking, critiquing, problem solving, improvising, or debating. Insistence upon a common, more public outcome (compared to other kinds of school work), with judgments based upon technical prowess or realistic accuracy, causes students to learn very early who is "good" or

"poor" in these areas. Furthermore, the hidden curriculum of schools emphasizes "the basics" over art and music; thus, students also learn that art and music are frills or rewards for good behavior and hard work performed elsewhere in the curriculum. Ironically, most students learn very early that art is fun, but not important in the greater scheme of things like getting a job, and they hold a romantic view of art in society as a place occupied only by artists who are a rather strange, fringe minority producing paintings (May, 1985).

Acquisition of culture and wise use of leisure time. By the turn of the century, mere technical proficiency in the arts was perceived negatively to exclude aesthetic understanding and increase tensions among socioeconomic classes in American society. Middle-class enrichment became part of the vision of public liberal education, and "good living was to involve the acquisition of culture" (Freedman, 1987, p. 68). Thus, this goal can be viewed as the acquisition of culture and wise use of leisure time for the rising middle class and burgeoning immigrant population. No longer were the arts perceived as privileged provinces of the elite. Furthermore, changes in industry and a reduction in the work week left Americans with more time on their hands, which disturbed some leaders. With the shortened work day, the productive use of leisure time became a social concern. The Kingsley Report of 1914 and, later, David Snedden in 1917 (both cited in Freedman, 1987) argued that school was responsible for preparing persons to use leisure time wisely and that science could replace the arts in examining the more "vital" aspects of life, thus, art ought to be reserved for recreation.

In the early part of the 20th century, art appreciation was introduced into the public schools as "picture study," whereas previously this subject had been offered only at the college level. Interestingly, the manufacture of wax crayons in 1902 created the study and introduction of color and expressive qualities in art education (Wygant, 1983). However, a pronounced interest in

picture study was acquainting students with the titles, dates, and names of the "best" artists of Western culture with little room for critical debate or discussion.

A prominent goal in music education also has been the transmission of culture and providing equitable access to "high" culture across socioeconomic boundaries. As early as 1837, a committee report to the Boston School Board recommended that music be included in the public school curriculum:

> Music has . . . too generally been regarded as belonging solely to the upper air of poetry and fiction. When, however, it is made the grave subject of legislative enactment, it is necessary to summon it from this elevation and . . . consider it in connection with the serious concerns of real life. (cited in Colwell, 1986, p. 32)

Even today, music is said to "help the student understand better the nature of mankind, providing a readily accessible avenue to the study of other cultures" (Music Educators National Conference [MENC], 1986, p. 13). The notion of equal opportunity for success and access to culture is alluded to by music educators who suggest that music also can provide "an opportunity for success for some students who have difficulty with other aspects of the curriculum" (MENC, 1986, p. 13).

Developing the moral citizen and good taste. Another goal in arts education has been molding the moral citizen and developing good taste. The picture study programs that emerged in the late 1800s and persisted into the 1920s were used to inculcate moral character in the burgeoning immigrant student population. Values such as loyalty, thrift, obedience, punctuality, beauty, and responsibility were examined through picture study. In a report written by Bailey (1909), the stated purpose of art was "to raise the standard of taste" (p. 7). As mass-produced objects increased (as opposed to unique creations of artists and craftspersons), art education focused on the study of masterpieces as well as familiar environmental dimensions for developing and practicing "good taste" (furniture arrangement, clothing, or landscaping). The

development of technology had a positive influence on arts appreciation, for example, the introduction of wax crayons (mentioned earlier), the phonograph, and printing technology that made color reproductions of art work possible for classroom use.

The initial reason for including music in the curriculum emerged from the role of religion in colonial schools and the perceived function of schools as preparation for life. There was practical and moral value in being able to sing hymns in church on Sunday, thus, there was justification for teaching vocal music in schools much earlier than visual arts. As Colwell (1986) suggests, "Singing and chanting the gospel through congregational and choral music was one means of communicating with God, of enhancing the spiritual experience, and of conveying the scripture to an only partially literate congregation" (p. 7). Later in the early 1800s, in a 1837 School Committee Report to the Boston School Board, the moral and spiritual purposes of music education were evident:

> [There is a] mysterious connection, ordained undoubtedly for wise purposes, between certain sounds and the moral sentiments of man. Now it is a curious fact, that the natural scale of musical sound can only produce good, virtuous, and kindly feelings. You must reverse this scale, if you would call forth the sentiments of a corrupt, degraded, and degenerate character. (cited in Colwell, 1986, p. 32)

During the 1840s and the common school movement, music served as a moral educator in the social strategy to resist alien values that came with mass immigration. Music aimed to inspire students to "do good deeds, despise indolence, and love one's country" (Efland, 1984, p. 267). In the late 1800s, the entertainment value of music was apparent with touring ensembles and European soloists attracting large audiences. Boys' correctional schools employed cornet bands long before bands were a part of public schools after the 20s. Music education became "a viable curriculum offering, as public attitude turned toward the acceptance of music for its own merits instead of its earlier position

as a complement to general studies and good citizenship" (Shehan, 1986, p. 28). With the technical inventions of the phonograph and radio, good music could be brought into the classroom for appreciation and study. "No justification was needed for including Walter Damrosh's radio appreciation lessons in the school day" (Colwell, 1986, p. 33).

Generally, however, the bulk of the literature in American music education from 1800 to 1950 makes little mention of aesthetic development as a primary goal of music education. Until the contest era of the 1930s, music educators were careful to separate bawdy folk songs accompanied by dance music from music considered to enhance more virtuous characteristics (Colwell, 1986). In a 1929 report, Dykema stated that the three major goals in music education were to develop a love for and appreciation of good music, technical power, and the spirit of cooperative service, thereby reinforcing spiritual values. By 1945, music also was seen to enhance morale and esprit de corps.

During the Great Depression of the 30s, art education focused on beautification of the working family's surroundings, how to use inexpensive materials to make home more aesthetically pleasing, and the use of art in daily living or in the community. The arts were used to teach values of social cohesion during this difficult period as well as during the onset of World War II. "Art classes made posters during the sale of war bonds; theatre groups put on skits dramatizing the danger of spreading rumors; and choral groups inspired feelings of patriotism and raised morale" (Efland, 1984, p. 268). Hamblen (1984) suggests that certain decades appear to have a more singular focus in the arts than others: "These decades seem to follow fairly closely the end of a major war" (p. 116). In addition to increases in population and industrial achievements that follow a war, there is the possibility that "the aftermath of devastation may call forth an affirmation of human values" (p. 116). Generally,

attention in the arts turns to the psychological reintegration of society and individuals (discussed later under the student-focused theme).

Major curriculum reforms. Despite the efforts of the progressive movement and later the activity curriculum in the early 50s, there were great debates and criticism launched at public schools, particularly at the secondary level. Curricular interests swung to "life adjustment" education where vocational education and family life curriculum were emphasized. This was an effort to "reach out to a new population of students and to attune the curriculum directly to the many activities that children and youth would need to perform as members of the society" (Kliebard, 1986, p. 262). Thus, the life adjustment curriculum addressed utilitarian and practical interests for noncollege-bound students, and these ideas filtered down into the elementary level as well.

In the 50s, curriculum design and implementation began to swing in a somewhat conservative direction toward precision, efficiency, and prepackaged, teacher-proof curricula. Recall that Bloom's taxonomy of cognitive objectives emerged on the scene in 1956, Krathwohl's affective taxonomy appeared in 1964, and two or three taxonomies for the psychomotor domain appeared in the 70s. Such precision and prescription in curriculum design resembled the task analyses or scientific management movement popular at the turn of the century. As at the turn of the century, in the 50s the quality of schools and curricula again were targeted as the reason another country had gained an intellectual or competitive edge over the United States. Russia's 1957 launch of Sputnik created a flurry of curricular reform, and arts education was not immune to this attention.

The primary curriculum attention in the early 60s was on mathematics, science, and foreign languages. Disciplinary experts examined the "structure" of each of their disciplines, and curricula were redesigned to improve students' conceptual understanding of these structures. Huge federal projects and grants

were funneled into this effort, and although this sounds like a subject-matter or academic interest, reform was driven by Cold War fear and global competition of a different order. Surely, launching a satellite required more of schools and students than rote memorization, drill, or unbridled "creativity."

Already emphasized in the visual arts curriculum, creativity was targeted as a characteristic or skill to be studied and developed for greater purposes than self-expression. From the therapeutic value of art emphasized in the 40s-60s, interest in creativity shifted to developing creativity for transfer. Arts educators attempted to strengthen their position in general education with the argument that artistic creativity could be generalized to other subjects or areas of life. There were numerous publications from the National Arts Education Association (NAEA) justifying the development of creativity through art. In general, academically gifted and talented children in science and math and the study of creativity received increased attention in order to locate and develop America's "brain power" after the Sputnik launch.

The response of music educators was somewhat similar. Attention shifted from aptitude to achievement and from attempts to identify the musically gifted to attempts to determine better the effects of instruction. Thus, attention shifted to accountability. The achievement movement was plagued by similar difficulties of the earlier aptitude movement in music. Serafine (1986) notes:

> Definitions of musical achievement varied widely. Paper-and-pencil tests requiring music listening ability bore little relation to the ability to play an instrument or compose--in short, to make music. Moreover, the tests foundered on the task of assessing the effectiveness of school music programs because the goals . . . , even if clear, were seldom in line with test constructors' notions of musical knowledge. (pp. 304-350)

Like the visual arts educators, music educators attempted to establish norms for children's musical abilities from a developmental perspective, with some success; tried to resolve the nature-nurture controversy with regard to musical ability, moving more toward the position of nurture; investigated the

relationship of musical ability and general intelligence, finding little correlation; and explored the relationships between musical ability and abilities in other content areas (academic and the arts), also finding no strong correlation.

Student-Focused Themes in Art and Music

Nurturing individualism and creative expression. The second most prominent goal in art and music education has been creativity, a theme identified by Freedman (1987) and other arts educators as the promotion of healthy individualism and creative self-expression. Obviously, this goal is more student-focused than those pertaining to subject matter, social efficiency, or social meliorism. During the common school movement in the mid-1800s, Francis Wayland Parker's humanistic ideas (rooted in Froebel and Pestalozzi) were quite influential. Studying children's art at the turn of the century was an integral part of the child study movement. Children were "encouraged to make spontaneous drawings, paintings, and sculptures," receiving little or no systematic instruction in the visual arts (Johnson, 1982b, p. 24).

Emphasis on attention and expression, sensory experiences, active materials-based learning, and assisting children in their search for and construction of meaning can be traced forward from Parker to Dewey in the late 1800s, the progressive movement during the 20s and 30s, the activity curriculum in the 40s, to Bruner's discovery learning in the 50s, and into the late 60s of "personal relevance" and counter-culture activities (Korzenik, 1984). From the mid-40s to around 1960, creative expression, multi-media experiences, the notion of "child as artist," and a psychological basis for curriculum development were emphasized by visual arts educators such as Lowenfeld, D'Amico, and Schaeffer-Simmern. By the mid-40s, visual arts education had been influenced by refugee German teachers who had worked at the Bauhaus (a German school of

design which emphasized media exploration). Indulgence in experimentation and improvisation with materials and media resulted in little of the systematic inquiry or instruction that was originally intended by the early progressive educators (like Kilpatrick and Dewey) who had an equally serious interest in social meliorism.

This individualistic, creative theme appears in music education, even during the mid-1800s. In 1841 Horace Mann, leader of the common school movement, claimed, "Good feelings, and pure tastes and elevated sentiments, can be nurtured. Already this is done. How has music made our schools radiant with happy faces!" (cited in Efland, 1984). However, such remarks need to be appreciated in the context of social efficiency and the larger purposes of the common school movement that was intent upon adapting immigrant students to an "American" way of life. At the turn of the century, music education included rhythmic movement and dance as forms of musical expression. The Dalcroze approach (imported from Switzerland and Germany to the United States by 1920) incorporated ear-training games (solfége), movement, and improvisation (Mead, 1986). The "whole-body" approach to learning music was considered an essential prerequisite to reading, performing, and interpreting music. Bare feet and bare legs freed the musical spirit; however, few students in public schools ever experienced this form of music instruction. They continued to learn music by sight reading and rote practice with little or no improvisation. Most songs contained religious, patriotic, and moral messages.

The progressive education era in the 20s and 30s supported the view that exploratory experiences were vital to learning. Many of these were group activities that called for cooperative problem solving. To communicate the results of their efforts, students were encouraged to use artistic forms of communication such as murals, puppet shows, models, charts, and displays. Art activities were integral to the problem-solving process, the communicative

vehicle for correlating the ideas of small groups and reporting these to a larger audience. The underlying purpose for correlating and integrating the arts with educational goals such as group problem solving during the progressive movement, however, was to help students achieve personal integration of their experiences (Chapman, 1978), not necessarily to teach them about art as a subject of study.

Even today, music educators support goals related to creativity. Music "has an obligation to help each student develop his or her musical potential," and it ought to provide "an outlet for creativity and self-expression. It enables us to express our noblest thoughts and feelings. . . . It allows us to assert our uniqueness" (MENC, 1986, p. 13). Likewise, visual arts educators (National Art Education Association, n.d.) still regard thinking, feeling, and acting creatively as important goals in visual arts, however, not nearly as important as other goals stressed in recent reform efforts. In state and district curriculum guides, little mention is given to aesthetics, history, or criticism in visual arts until the 60s (Kern, 1987). During the 50s, attention also riveted on developmental stages. Piaget's ideas had a strong impact on research and curriculum development in the arts later during the 60s. Although stage theory continues to guide research and practice in art and music as a generic framework, more attention is being given to what students think and can do beyond age-level boundaries or artificial stages, particularly in the visual arts.

During the 50s the post-World War II era seemed to be a period of peace and prosperity, however, it also was a period of atomic power, the Cold War, McCarthyism, and a struggle for equal rights. The arts and sciences in society expanded as abstract expressionism and invention flourished in the United States. Artists and writers continued to express inner dilemmas provoked by external circumstances. The student-focused, core curriculum movement in the

50s may have been instigated to set straight the misinterpretations of Dewey's progressive ideas and to redirect what should be the "proper" characteristics of an activity curriculum. It may have been used to readdress what the curriculum should be for all students, no matter their aspirations. In any event, advocates of the core curriculum movement emphasized "a closer relation between student interest and interdisciplinary knowledge" (Schubert, 1980, p. 134).

Subject-Matter or Disciplinary Themes in Art and Music

Russia's launch of Sputnik instigated much curriculum reform in the United States. Kliebard (1986) sums up the primary changes in curriculum practice during the structure-of-the-disciplines movement in the 60s: (a) Directors of major curriculum projects such as the National Science Foundation were drawn from academic departments in major universities, shifting control from the traditional professional education community. (b) The academic subjects became the basic building blocks of the curriculum, rather than projects or "areas of living." And, (c) locus of control shifted to centrally controlled curriculum development and revision, where curriculum was developed by academic "experts" and passed down to practitioners in the form of "teacher-proof" curricula to be implemented with fidelity.

Despite the specialized disciplinary interest, there was an effort to liberalize education or "raise the intellectual level for all--ultimately extending to the social sciences and the humanities as well as the natural sciences and mathematics" (Kliebard, 1986, p. 269). The disciplinary effort was not so much to replace or reconstruct academic subjects to make them more functional as it was to bring school subjects more in line with "the frontiers of scholarly endeavor" (Kliebard, 1986, p. 268). Conceptions of the disciplines and curricula, other than the teacher-proof kind, were being developed by academic experts during the late 60s when the major orientation to arts learning shifted

to disciplinary structure and knowledge. The scholarly disciplines in art and music represented more than production and performance. Therefore, school subjects should reflect the many dimensions of their disciplinary counterparts in academe.

Bruner's seminal work, The Process of Education (1960), and his participation in several arts-related conferences had a significant impact on the structure-of-the-disciplines movement and curriculum reform in art and music as well as other content areas during this period. Bruner thought that the disciplines could be represented to students in intellectually honest ways, no matter the grade level. The more fundamental or basic ideas of the disciplines that students learned, the greater the students' depth and breadth of knowledge in its applicability to new problems. Discipline-centered inquiry was what Bruner called encounters with these basic ideas, and these ideas were to be obtained from "the best minds in any particular discipline" (p. 19). The so-called "structure" to which Bruner referred was not only related to a perceived attribute of a body of knowledge where content is ordered conceptually so that ideas can be readily stored and retrieved. He also referred to "structure" in much the same way that Piaget defined "schemata" or an individual's cognitive structure. Bruner's theory of instruction "assumed that these two ways of construing the nature of structure were intrinsically relatable; a curriculum with a structure based on the disciplines would also foster the development of cognitive structures" (Efland, 1987, p. 65).

An era of foundational texts, conferences, and reform. Understood within the broader context of the structure-of-the-disciplines movement in the 50s and 60s, significant progress was made toward the redefinition of the visual arts and music as a result of the 1959 Woods Hole Conference and the 1965 Penn State Seminar in Art Education for Research and Curriculum Development. The former

conference concerned itself primarily with reports on the status of various curriculum projects in science and mathematics. The latter was a federally funded project attended by leading representatives of art education, general education, the visual arts, art criticism, and aesthetics. The consensus of the above seminar was that "art . . . is a discipline in its own right, with goals that should be stated in terms of their power to help students engage independently in disciplined inquiry in arts" (Efland, 1984, p. 270). Thus, it was determined that the art curriculum should derive its structure from the processes that artists, historians, and critics use in their work. Content in the arts would consist of the language, concepts, and processes derived from the fields of studio production, art history, and art criticism. Some of the curriculum projects emerging from the 60s were those of the Central Midwestern Educational Laboratory in St. Louis (CEMREL) and the Kettering Project (Eisner, 1969).

A similar reassessment and disciplinary debate occurred in music education in the late 50s and 60s. Foundations and Principles of Music Education (Leonhard & House, 1959) was a turning-point text in that it incorporated aesthetic education. Two more influential pieces in the music education community during this period were by Foster McMurray and Harry Broudy in the 1958 National Society for Study of Education yearbook (cited in Colwell, 1986). What these writings have in common is their deemphasis on performance and increased focus on aesthetic education in the music curriculum. Amid the proposed changes, aesthetic education in music was construed by music educators in a number of ways, however. Music educators "positioned themselves to . . . use . . . aesthetic education to justify all shapes and types of music programs" (Colwell, 1986, p. 34).

It was not long before music educators gained more insight about the nature of aesthetic education from Leonard Meyer's (1956) Emotion and Meaning in Music and by returning to Suzanne Langer's (1942) earlier work, Philosophy in a

New Key. (The latter work also was used by visual arts educators.) Meyer illustrated how the study of musical elements could assist in the study of aesthetics. This new focus away from performance and toward aesthetics freed many music teachers to experiment with contemporary, ethnic, popular, and jazz music, as well as creativity and improvisation. However, "rationalization and rationale became synonymous" with the difficulty in assessing aesthetic goals (Colwell, 1986, p. 35).

By the late 60s, music education began to move in the same consolidated direction as the visual arts, incorporating the dimensions of aesthetics, history, and criticism. In 1966 the Journal of Aesthetic Education, a forum for all arts educators, not only music) emerged, followed by Reimer's (1970) A Philosophy of Music Education. Reimer's ideas could accommodate almost any kind of musical activity; thus, it was frequently used as justification for music in the general education program. He posited seven music behaviors which could accommodate aesthetic education as well as performance: perceiving, reacting, producing, conceptualizing, analyzing, evaluating, and valuing. Nye and Nye's (1977) elementary education text incorporated aesthetic education in a tripartite arrangement of goals which also included music as a social language and intellectual experience.

The most familiar impetus for aesthetic education across the arts disciplines during the late 60s and early 70s was CEMREL (1970) or the "Aesthetic Education Program." CEMREL aimed to address both creative and appreciative dimensions of music, dance, theatre, literature, and the visual arts with its primary thrust in aesthetic education (Barkan, Chapman, & Kern, 1970). Before its federal funding terminated in 1978, several sets of curriculum materials were developed and piloted, and numerous research studies were conducted and reported. However, there is little evidence that CEMREL materials are being used extensively in the field today, in visual arts or music.

The Southwest Regional Educational Laboratory (SWRL) Elementary Art Program began its early work on art curricula in the mid-60s. In 1972, this work was revised to provide a sequenced, systematic approach to art instruction. The appropriate domains or content areas of art identified by the SWRL staff were production, criticism, historical-cultural setting, and expressive quality. Six classes of desired outcomes (applied to these disciplinary areas) were visual analysis, representational style, media techniques, critical analysis, qualitative problem solving, and historical setting (Efland, 1987). The SWRL curriculum focuses primarily on design elements (line, shape, color), production skills, and attempts to balance interests in production, criticism, and history.

An effort to update music in the schools was the Young Composers Project which began in 1957 with a grant from the Ford Foundation. By 1962, 31 composers were in school systems, and even though the response was favorable, the composers reported that many music specialists were poorly prepared to teach with contemporary idioms. Evolving from this effort, the Contemporary Music Project (CMP) began in 1962, which added workshops and seminars in various colleges throughout the United States to educate teachers about contemporary music through analyzing, performing, and creating music. During its final years (early 70s), the CMP "devoted much of its attention to the skills and knowledge required to deal with all types of music. Its approach was a process-centered one that included three components: performing, organizing, and describing" (Hoffer, 1983, p. 102). Through this approach, CMP maintained that compartmentalization in the music profession could be reduced. In other words, a piano or voice teacher would be concerned about the theoretical and historical aspects of music as much as the performance aspects.

Music educators (MENC) were intrigued with some of the Ford Foundation projects like Composers in the Schools, and in the 60s were particularly

concerned about fostering creativity in and understanding of contemporary music. The Tanglewood Conference in 1967 was too late in the ideological ferment to be influential on practice (Colwell, 1986). The Manhattanville Project (Manhattanville Music Curriculum Program/MMCP) funded in 1968 emphasized creativity, contemporary music, and less drill and practice. A sequential K-12 program, it engaged students in composing, performing, and listening to music with a focus on musical concepts and elements. It is said to be one of the best curricular representatives of the consolidated interest (Serafine, 1986, p. 337). MMCP proponents "took the solipsistic view that only what the student figures out for himself or herself is really learned" (Hoffer, 1983, p. 103). Ronald Thomas, the MMCP director, claimed "real education is not a study about things; it is experience inside things" (Thomas, 1970, p. 70).

Madeja (1984) suggests that the above arts-related conferences "concerned themselves with the traditional interests of arts educators--the creation of the art objects and the development of the performance--and . . . concentrated on bringing the artists and the performance into a more prominent position in the school and community" (p. 283). Not only were curriculum packages funded and attempts made to reform arts education through curriculum materials, professionals were brought into the schools and students were taken to museums and performances as further testament to the need for expanding the arts beyond mere production and performance. This era of curriculum reform included concerns about visual/musical literacy for all, usually construed as aesthetic education rather than education for the talented few. The era explored cross-disciplinary arts curricula, environmental design, newer media such as film and TV, cross-cultural and ethnic studies, the study of popular music and pop art, and improvisation in both arts disciplines (Colwell, 1986; Hamblen, 1984).

The above interests must be examined in cultural context. While the post-Sputnik era spawned interest in the structure of disciplines and aesthetic

education, contemporary society was entangled in the civil rights movement, protests, counterculture activities, problems associated with urban living, personal and social alienation, and concerns about environmental pollution and world peace. The cry for "relevance" in the late 60s assumed many meanings, not only in society at large, but in school programs, curriculum offerings, and among individuals. The protest literature influenced experiments in open schools, alternative schools, and "free" classrooms, and these were ripe arenas for using experimental curricula and approaches to arts education in schools.

The elegant curriculum packages designed by experts paled in the social crisis and the budgetary crunches of the late 70s. Federal monies for research and development activities were drastically cut, and the golden age of curriculum research and development in the arts waned. Private funding, endowments, and advocacy groups emerged more prominently as a tiny cradle for nurturing change. However, along with this support came the interests of advocacy groups, which represented ideologies not shared by all arts educators.

Recent Themes and Trends

In the late 70s and 80s, the arts--like other subjects--have existed in the context of budgetary retrenchment, political conservatism, global economic competition, highly publicized attacks on the quality of schools, and narrowly conceived attention to the "basics" and test scores. Now, concern about global economic competition related to academic achievement points an accusing finger toward Japan, not Europe or Russia. The arts continue to struggle for space, recognition, and legitimacy in the general curriculum. Thus, research in the arts--particularly in this decade--has not been the priority item that building alliances, strategizing, lobbying, and policymaking have been. In a document written by and for the Arts Education Community (1986), which includes national organizations in the visual arts, music, dance, and theatre, the tone is one of

distrust of the advocacy movement with a call to street-wise, activist recommendations for policymaking from within the professional arts organizations: "It is imperative that serious, sophisticated policy consideration be given to the educational policies being promoted by the advocacy movement, especially regarding their relationship to the future of the arts in the United States" (1986, p. 17).

One attempt to maintain the arts' foothold in the general curriculum at the elementary level traditionally has been to treat all of the arts as a single area of study. Madeja and Smith (1982) call this the "tree trunk" approach. In the elementary grades, the trunk of this tree represents all the arts--visual, music, dance, theatre, and so on. At designated times, study branches into one of the arts disciplines more than others. CEMREL (1970) is one example that uses this multi-art study, as is the Harcourt Brace Humanities Program that integrates the arts into other subject areas and the earlier editions of the Silver Burdett music text series that often related music to aesthetics and other art forms.

The effort to consolidate the arts continues to have a problem addressing the lack of parity between the arts in schools. For example, visual arts and music dominate both elementary and secondary curricula, while dance and drama take a hindseat, particularly at the elementary level. The problem is compounded by the federal government's position when awarding grants to various school systems for arts and education programs, beginning over a decade ago. To be eligible for such grants, all the arts had to be included (as originally in this call for a grant proposal). The implication of this trend has been that the arts as disciplines have not had integrity of their own, apart from each other (Madeja & Smith, 1982). Today, there is increased movement among the arts disciplines toward separatism, even with the risk of losing external funding opportunities. Despite similarities, each art discipline is quite

unique in its discourse, theory development, and practices, and each requires particular ways of teaching and learning if conceptual understanding and critical thinking are to be fostered in its discipline.

The most recent trend in visual arts education has been Discipline-Based Art Education (DBAE). Founded in 1982, the Getty Center for Education in the Arts (of the J. Paul Getty Trust) proposed this major curricular revision (Getty Center for the Arts, 1985). DBAE claims that K-12 visual arts should draw upon the four foundations of the visual arts discipline: aesthetics, art criticism, art history, and art production (creating). Further, DBAE calls for written, sequential curriculum that also emphasizes evaluation criteria and procedures. Formal evaluation in art and music rarely has been a pronounced school- or district-based effort in arts education. Given the norm, written curriculum based upon equitable attention to these four disciplinary dimensions, well-articulated curricular sequence and assessment, and the use of trained specialists are unusual practices in art at the elementary level.

The goals of the National Art Education Association, likewise, describe art content as a balanced integration of art production, aesthetics, art criticism, and art history. Thus, this disciplinary focus not only emerged from the privately funded Getty project, but it also has gained national momentum and adoption by a professional organization. Many of the experts involved in the Getty project also are major figures in the professional organization and art education at the university level, and many of the DBAE leaders were leaders in CEMREL, SWRL, and previous discipline-focused projects of the 60s. Several state departments and school districts now are adopting this curricular focus (i.e., Ohio and Wisconsin), despite the critics.

Jackson (1987) criticizes the DBAE movement by questioning the nature of balance, parity, and sequencing among these four "content" areas and how they will be articulated realistically in practice. He dislikes the prescriptive

tone of the recommendations and the choice of level for implementation (school district, as opposed to school level). And, he suggests many aspects of such a technically conceived and prescribed curriculum have been designed for appearance's sake to make art seem as rigorous as other subjects, and therefore, as legitimate. Ewens (1986) thinks the intellectual dimension of art instruction has been overemphasized; Hausman (1986) suggests that other foundational areas have been overlooked; Feldman (1987) thinks DBAE may be sufficient for average students but not the artistically gifted; Hechinger (1985) is concerned that spontaneity in art instruction would be discouraged; and Hamblen (1985) accuses DBAE of forwarding a kind of "technocratic rationality."

How is DBAE different from the structure-of-the-disciplines movement of the 60s? I see little difference, except that the 60s curriculum reforms often were more inquiry-oriented than what DBAE now proposes. Clark, Day, and Greer (1982), leaders in the DBAE movement, probably would disagree with my assessment. DBAE is similar, they claim, in its focus on the visual arts as a disciplinary area with a decreased emphasis on production. However, they say that the contemporary reform effort has been established by art curriculum specialists rather than university scholars. Current funding is generated by public and private agencies, whereas in the 60s curriculum reform was a federal endeavor. Current reform efforts are said not to be "teacher-proof" because curriculum development is a district-wide, team effort. DBAE requires focus upon art as a subject of study, deemphasizing self-expression or creativity. It is said that creativity (as unconventional behavior) can occur only as conventional art understandings are attained. Untutored childhood expression is not necessarily creative, claim DBAE proponents.

Another interesting trend in visual arts has been the development of K-6 textbooks, an instructional resource more unique to elementary art than music. Hubbard and Rouse's (1981) efforts are reflected in Art: Meaning, Method, and

Media. This series focuses primarily on studying the design elements of art (line, shape, color, etc.) with production skills dominant (Efland, 1987). Chapman's (1985) Discover Art series focuses on organizing centers or "themes" that are problem-centered inquiries, and there is an equitable treatment of production, criticism, history, aesthetics, and art in everyday life. The J. Paul Getty Trust (of DBAE fame) contributed funding to this project so that the teachers' editions could include color reproductions.

Music education in the last couple of decades has been influenced not only by adopted textbook series but also by several popular "methods," most of them imported from outside the United States, such as Suzuki, Orff, Dalcroze Eurhythmics, and Kodaly. Shinichi Suzuki's "mother-tongue" method was introduced in the states from Japan in the late 50s and 60s at a time when there was a paucity of string players to channel into symphony orchestras; interest was high in early childhood education and talent development; and small violins were fairly inexpensive to manufacture.

In 1964, the *Suzuki* movement gained momentum with the appearance of the Japanese Tour Group with Suzuki at the National MENC Conference in Philadelphia. Many of the most skeptical music educators were won over with this tour. However, the true test would be addressing the question: Can American children achieve as well as the Japanese? The 70s were filled with summer institutes involving children, parents, and teachers; thus, the Suzuki method gained popularity as a method for learning instrumental music at a very early age. The familiar image is pint-sized preschoolers playing pint-sized violins, but now several other instruments are taught utilizing this method, and older learners are taught in this manner (Kendall, 1986).

Suzuki was greatly influenced by child development authorities such as Montessori and Piaget. His conviction was that all children are born musical and can learn to play musical instruments in much the same way that they learn

to speak. His basic principles include early listening (from birth to two to three years old), postponing the reading of music until the child is technically well established, instructing and involving parents for home teaching and practice, using carefully graded music literature with recordings for repeated listening and mimicking, using both private and group lessons to maximize development and motivation, using constant repetition and review, and minimizing competition. In Japan, Suzuki referred to his approach as a "Talent Education" program. In the United States, Suzuki often is scheduled as an extracurricular or after-school activity, or it is offered as a popular form of paid, private instruction.

The German Carl *Orff*'s Schulwerk is an integrated approach to the performing arts--music and movement in particular (Shamrock, 1986). Singing, saying, dancing, playing, improvisation, and creation constitute an active approach to learning music. The goal of the Orff method is the development of persons who are comfortable with active music making. "They can sing, move, play instruments, use speech in rhythmic and dramatic contexts, improvise simply in all of these areas, and combine materials into original forms" (Shamrock, 1986, p. 52).

Orff's interest in "elemental" music means that he believes that children's musical development roughly corresponds to the development of music (rhythm precedes melody, melody precedes harmony, etc.). Learning takes place in a group context where cooperation and contribution are fostered. Most applicable to the elementary level, this method also has been used with mentally and physically handicapped children. The Orff teaching process uses exploration, imitation of rhythmic speech and body percussion, playing nonpitched and pitched instruments such as the special Orff African xylophone--improvisation, and creation. When misinterpreted or misused, however, the Orff method requires "correct responses" and little improvisation or exploration, as

originally intended. About two-thirds of U.S. elementary music specialists have participated in Orff workshops (Hoffer, 1983, p. 127).

Dalcroze (introduced in the United States around 1915 by Swiss educator Émile Jacques-Dalcroze) is rarely used as single program or method, but most often appears as part of a music teacher's repertoire. If solfége (ear-training games and singing with syllables), eurhythmics (movement), and improvisation are used equitably, then one is using the Dalcroze method as originally intended. A physical response to music is a basic Dalcroze approach. "The public schools could not provide time or space for [Dalcroze] to be taught in its authentic form . . . however, some teachers adapted his procedures, and in other cases teachers were influenced by the approach without being aware of it" (Hoffer, 1983, p. 123). A modest renewal of interest in Dalcroze has occurred since 1970, and about 20 colleges offer some instruction in this approach for music teachers.

Zoltan *Kodaly's* approach incorporates perennial and contemporary ideas about music education: the use of the "highest quality music" (including folk music to preserve and understand one's own culture), universal music education for all students, early music experiences; an a cappella (unaccompanied by instruments) vocal foundation for music learning, use of relative solfége experiences before learning notation, and a child-centered learning sequence (Sinor, 1986). The primary interest of Kodaly is creating a musically literate population who can read notation. No commercial popular music is found in the program. The problem with transferring these ideas to the American scene rests primarily on agreeing upon what constitutes "good" music, identifying which culture and folk songs in our American tradition are most worthy of study and preservation (since we have more than one kind), and employing music specialists to teach music. In Hungary where the Kodaly method originated, these recommendations may have been less troublesome. Exposing children to the "greatest"

music is a perennialist notion not unlike that of the "Great Books" advocates who propose that all children should be exposed to the greatest ideas of Western civilization. The problem is: In the United States, how do we determine which are the greatest works, and why only the western tradition?

About a decade ago, Edwin Gordon's "Sound-to-Symbol" approach gained attention in music education. His basic premise is that music instruction must be sequentially based upon how children learn communicative language. Influenced by Gagné, Gordon's theory includes two kinds of thinking divided into subskills: discrimination and inference. Aural/oral, verbal association, partial synthesis, symbolic association, and composite synthesis for discrimination learning must be followed in close sequence. Generalization, creativity, improvisation, and theoretical understanding for inferential learning can be drawn upon at any time, having no particular sequence. The latter kind of learning more nearly reflects what is called "higher-order" thinking (Jordan-DeCarbo, 1986).

Jump Right In is Gordon and Woods's (1985) elementary to middle-school music curriculum based upon a sound-symbol approach. Since music is perceived as an aural, not visual, art, instruction begins with the development of aural acuity in the absence of visual stimulation (notation). The materials are highly sequenced through a process involving acquisition of a vocabulary of tonal and rhythmic patterns. The single most basic skill to be taught and upon which all other music learning is based is the skill of "audiation" or the sense of hearing. To audiate is to "hear" music when the sound is not present. This primary skill requires a sense of tonality and meter. This material is not a typical elementary music textbook series. The kit contains numerous pieces, and the format suggests that only a music specialist would know how to present the content, manage the materials, or administer and assess the numerous discrimination tests.

The new edition of Holt, Rinehart and Winston's elementary music series, Music, (Meske, Andress, Pautz, & Willman, 1988) claims to be designed in terms of Bruner's theory of learning and concept development, sequenced and organized so that students are learning more about music than performance and production. Information to the teacher and suggested instructional discourse are qualitatively different than most music textbook series provided to teachers.

To summarize recent trends in music education, it would be rare to find any one of the above approaches or materials used school- or district-wide, as music education more nearly represents a composite of pedagogical approaches and interests, most of these imported. Each music teacher, because of his/her initial and continuing professional education, is more apt to embody a mixed repertoire than to reflect any one curriculum or pedagogical approach over another. Regular classroom teachers who teach music are more apt to rely on a music textbook series or their own resources to teach music. An interesting phenomenon in music education is that some state and district levels are adopting the DBAE (visual arts) position in rewriting their music curriculum guides, using the same rationale and arguments for sequencing and evaluating learning in the "four domains" of production, aesthetics, criticism, and history.

Although there is no "discipline-based art education" treatise in music education as such, the goals in music parallel those in visual art, articulated in The School Music Program: Description and Standards (MENC, 1986). However, the theoretical rigor, well-articulated focus, political activism, and internal debate evident in NAEA and its proliferation of literature are less apparent among the writings of MENC. As in art education, music educators embrace the notion that music is a legitimate and special body of knowledge or disciplinary area with its own inherent structure, skills, and ways of thinking. MENC's (1986) emphasis on the "ability to perform, to create, and to listen to music with understanding" (p. 13) parallels concerns about production and aesthetics

in art. "Formal study of music can sharpen one's sensitivity, raise one's level of appreciation, and expand one's musical horizons" (p. 13). Transmission of the cultural heritage, appreciation of other cultures, and music as a "transforming human experience" parallel art educators' interest in the socio-historical dimensions of art, aesthetics, and criticism. Another theme is that music, like art, is worthwhile knowledge for all students (not merely the elite or talented), so that musical understanding and appreciation should be perceived as a desirable form of literacy. Writings in both art and music education frequently allude to these disciplines as kinds of language or symbol system requiring a "literate" understanding and appreciation.

The most recent document from the NAEA (1986) reveals the following primary outcomes for students as a result of a "quality" art program. Students would be able to do the following:

1. Develop, express, and evaluate ideas

2. Produce, read, and interpret visual images in an increasingly visually oriented world

3. Recognize and understand the artistic achievements and expectations of civilized societies

The primary content that the organizers emphasized in the above document include art production, aesthetics, art criticism, and art history, which reflects the DBAE ideology.

Contemporary goals for music education are similar to those in the visual arts. MENC (1986) states that the fundamental purpose of teaching music is "to develop in each student . . . the ability to perform, to create, and to understand music" (p. 13). Proposed outcomes for students as a result of a quality music program are that students:

1. Are able to make music, alone with others;
2. Are able to improvise and create music;
3. Are able to use the vocabulary and notation of music;
4. Are able to respond to music aesthetically, intellectually, and emotionally;

5. Are acquainted with a wide variety of music, including diverse musical styles and genres;
6. Understand the role music has played and continues to play in the lives of human beings;
7. Are able to make aesthetic judgments based on critical listening and analysis;
8. Have developed a commitment to music;
9. Support the musical life of the community and encourage others to do so;
10. Are able to continue their musical learning independently. (pp. 13-14)

Although both arts communities acknowledge that the general public may perceive potentially positive, nonmusical, or nonartistic outcomes of art and music programs (fostering school spirit, improving self-concepts or public relations, providing an enjoyable relaxed area in an otherwise busy and routine school curriculum), both organizations caution that the justification of either art or music in the general education program must be based upon disciplinary outcomes. In most current state, district, and local curriculum guides in art and music, goals are organized around the development of manipulative or technical skills; the exploration of media (or music); perceiving and responding to the formalistic or design properties of art forms; and creating, valuing, and critiquing. Almost always, the social, cultural, and historical dimensions of these two areas are mentioned in curriculum documents as fundamental ways of knowing.

The vague notion of "aesthetic taste" a century ago has evolved into better-articulated statements about the meaning of "aesthetic literacy," which now means the total effect of disciplined inquiry that assists individuals in developing certain dispositions only available through intense encounters with and experiences in the arts. Smith (1986) calls this overall goal in art "enlightened appreciation of art." Greene (1981) suggests that focus on aesthetic literacy is needed to "empower students to perceive aesthetically, to become discriminating in their encounters with the arts, to develop vocabularies for articulating what such encounters permit them to see or to hear or to feel"

(p. 118). Interpretive skills are required to render works of art intelligible, no matter how we define the arts (as symbol systems, provinces of meaning, domains, disciplines, or objects).

From this discussion, we can see that the goals in art and music education have not changed much over time in terms of their major, abiding themes. Today, there is less emphasis on the social efficiency perspective and creativity. Visual arts education hardly mentions creativity as a primary goal. There is little attention to the social meliorist perspective in the ideology of recently formulated curriculum policies and documents. And, there is increased attention to art and music as disciplines, or legitimate and distinctive forms of knowing and subjects of serious study.

Theoretical Context of Art and Music Goals

The goals in art and music education are comparable historically and culturally, and they also embody parallel themes derived from theories in aesthetics and education. It is important to acknowledge the theoretical constructs that undergird rationales and proposals for practice espoused in past and recent goals. Whether tacitly or explicitly understood, goals are derived from theoretical constructs or "world views" in the form of the following questions: What <u>is</u> the nature of art/music (what is art as opposed to non-art)? What is the nature of the artistic <u>process</u>? What is the nature of <u>response</u> to works of art? And, what is the nature of the aesthetic <u>object</u> or the work of art itself? The values ascribed to arts education and their subsequent goals originate in the ways we might address all four of the above questions. In order to accommodate the above dimensions and guide practice, we must examine these questions in both epistemic and axiological terms.

There are ways to explore theoretical constructs within and across the visual arts and music disciplines because both are "relatives" rooted in

aesthetic constructs, and both groups have used identical philosophical sources, such as Broudy or Langer. However, there is a distinct difference in the way "theory" is perceived among art and music educators. The discourses, research studies, essays, and curricula among art and music educators differ tremendously with respect to something one might identify as "theory."

Serafine (1986) claims that validation studies were and remain problematic in music education because "there is no established theory that would predict which musical behaviors are desirable" (p. 305). Most music educators speak of music theory as the nuts and bolts of learning how to read and listen to music, as in a college-level music theory class. Rogers (1984) is one music educator who has begun to explore the meaning of music theory, however, tentatively:

> In any event, we may say that music theory appears to be more like philosophy than mathematics. Theory . . . is not just something to learn but is also something to do. It represents not just a cluster of answers, but a range of options for thinking about and listening to music. Music theory, in my opinion, is not a subject like pharmacy with labels to learn and prescriptions to fill, but is an activity--more like composition or performance. The activity is theorizing: i.e., thinking about what we hear and hearing what we think about--and I would include even thinking about what we think. (p. 7)

Much of what is presented to teachers and students of music as theory is something akin to teaching the rules, conventions, and "right" answers to music rather than rival conceptions of knowledge or musical knowledge in particular. There is little to no discussion in the music research and education journals about epistemological frameworks utilized to frame research or choose pedagogical "methods."

In the visual arts literature, for art educators and teachers, aesthetic and social science theories are more integral parts of their discourse and work. For example, there are few art teachers who would not know what it would mean to teach from a "formalist" perspective. And many researchers and graduate students in art education are not only aware of rival theories and viewpoints but engage in university courses and inquiry that address competing

epistemological viewpoints about the nature of knowing, the nature of art, and the nature of teaching or researching from these different perspectives. The reader will be hard-pressed to locate many case studies, ethnographies, studies in cognition (writ large), critical science essays or studies, discussion of critical praxis, or poststructuralist investigations in music education literature (research or popular journals).

Most music education research examines perception and response, such as discrete pitch discrimination skills. This is not the case in visual arts. Music education texts for undergraduates and future teachers use Piaget, Bloom's taxonomy, and other rather dated ideas with little or no exploration of rival learning theories or other, more penetrating research about student cognition and development. In these texts, little of the research in music is applied or utilized. The visual arts texts are quite different in these aspects, and they also reflect the disciplinary debates and discourses that have occurred over the past 25 years.

Efland (1979, 1983) drew linkages among philosophic, aesthetic, psychological, sociological, and educational viewpoints in an effort to propose principled ways of thinking about art education and developing visual arts curriculum. His ideas also can be applied to music education for the above reasons. Using Meyer Abrams' work (Mirror and the Lamp cited in Efland, 1983) in aesthetics, Efland identified four families of aesthetic theory: mimetic, pragmatic, expressive, and objective.

The Mimetic Orientation

Mimetic theories derive their evaluative categories from nature. The value of a work is determined by the degree to which it provides a faithful representation of nature. Thus, the more "realistic" a work of art, the more it is valued. A common theme which links mimetic theories to psychological

theories is imitation and control. The most suitable psychological or educational theory to align with mimetic theory is behavioristic in orientation. Learning is a process of imitation, desired behaviors are modeled and reinforced in particular ways, and outcomes are valued if they are observable or measurable and exhibit the desired behaviors. When a teacher demonstrates a technique, shows students how to differentiate one style from another, provides an artistic model/sample to be copied, or provides a step-by-step sequence to be followed, this teacher is demonstrating or modeling a specific skill or performance to be undertaken by students.

Through imitation, copying, and practice, students can approximate this modeled outcome. Observable or measurable changes in behavior become the basis for determining whether or not learning has occurred. Traditional skills such as figure drawing, perspective, shading, memorizing a piece of music, or learning to follow the visual and kinetic cues of the music teacher are mimetic in orientation. This approach is more appropriate for basic skills development and producing standardized behaviors than it is for creative production or critical thinking.

In the evolution of school goals, those which refer to the development of technical skills in production/performance or the capacity to manipulate skills to achieve more complex outcomes are mimetic in orientation. Likewise, those goals which embody discrimination capacities (perceiving and identifying the elements of design or discrete tones of music) are mimetic-like. The ability to discern a whole note from a quarter note, a high pitch from a lower one, to finger an instrument, draw a picture of the human figure using classical proportion, or to identify shapes in a picture all rely on the development of these basic, technical, discrimination skills. The classroom environment is one that provides guided practice in developing correct responses and the reinforcement of appropriate responses toward a prescribed end until the skill is mastered.

The Pragmatic Orientation

Pragmatic theories derive their evaluative features from effects on the audience. The value of a work is determined by the degree to which it pleases and/or morally instructs the audience (18th century) or stresses how the arts are a vehicle for social interaction and communication. Knowledge is perceived to be a social construct, and art is seen as one of the instrumental ways in which reality is both construed and viewed by society. A common theme which links pragmatic theories to psychological theories is social adaptation or social reconstruction/meliorism, or what the arts can do in terms of the audience.

The most suitable psychological theory to align with pragmatic theory is social interactionism or a Deweyan kind of pragmatism. Knowledge is constructed by one's interaction with the natural and social environment. "One's view of art always undergoes reconstruction as new encounters are added to one's experience" (Efland, 1983, p. 30). Thus, learning is a continuous process of cognitive and social negotiation and reconstruction. Art is taught in the context of a problem to be experienced or solved. Socially, the arts are valued because they can symbolize a unified collective life and illuminate problems which alert persons to action. Also, the arts' value in society, by Deweyan standards, is based upon the notion of "consummatory experience" or aesthetic experience. The arts should be taught to help make personal and social transactions memorable and vivid in the facilitation of communication.

What would the teaching-learning process look like from this viewpoint? Content would be encountered in lifelike and problematic situations rather than as an abstract body of facts, knowledge, or skills to be acquired. Goals would be mutually determined between the teacher and students. The pragmatic orientation is illustrated when a teacher poses a problem and assists students in perceiving its relevance in terms of students' experiences and daily lives. The

problem also may emerge from students, whereupon the teacher responds to this problem as a facilitator in its solution. Most likely, classes would be arranged in small, cooperative groups to facilitate interaction and problem solving.

The art teacher who engages students in comparing visual forms that represent the values and beliefs of various cultures, including the students' own culture(s), is using a pragmatic orientation to the arts. Helping youngsters examine the relationship between architecture and "life space," then posing the problem of redesigning classroom space represents this orientation. The art teacher is pragmatic when he helps students explore the use of graphic symbols in advertising as it relates to the examination of propaganda and persuasive techniques. The music teacher reflects this orientation when she engages students in exploring the relationship of musical style, social inequality, and religion when studying the development of black gospel music and learning to sing or perform such music. The teacher is pragmatic when encouraging sixth graders to engage in a community project to record Appalachian folk music, trace its origins, and develop a plan for celebrating and preserving this musical tradition. After a social studies unit on transportation, a teacher is pragmatic when she poses the problem that students form into small ensembles to create and perform a nonmelodic piece using the concepts of rhythm and dynamics to represent the sounds of travel and how transportation has evolved over time. The teacher who says, "What would happen if . . . ?" and then encourages students to actively explore this problem is working from this orientation. Students experience the pragmatic orientation when they engage in planning, organizing, and facilitating their own art exhibit or musical performance.

Evaluation of learning from this orientation relies on examining both the problem-solving processes (what actually happened and how students engaged in the task) and the outcomes, or the degree to which the problem was solved

successfully, no matter the variable solutions. Thus, those goals that examine the arts in relation to problem-solving skills and developing a critical understanding and appreciation of culture, arts in society, and arts history reflect this orientation. Key clues to this orientation are that activities are problem-focused, relevant to students, and there are instrumental interests purposefully examined by the students, that is, examining the multiple uses and effects of the arts on the audience or society.

The Expressive Orientation

Expressive theories derive their evaluative categories from the nature of creation. The value of art is determined by the degree to which it reflects the creative process and the individual's freedom to engage in such a process. The work's originality with respect to its departure from the norms of predecessors and contemporaries is a primary criterion to judge its work. Knowledge is perceived to be a personal construct, a product of the imagination of the artist or composer, an expression of the self. Personal growth and integration occur through expression. "Good" education from this perspective is that which facilitates self-actualization of the individual. A common theme which links expressive theories to psychological theories is person-centered or therapeutic.

The most suitable psychological theory to align with expressive theory is psychoanalytical in orientation. Learning is a process of unfolding and is to be nurtured from the inside out. Content or subject matter emerges through self-expression and is derived from personal experiences, thus, content would be different for each individual and could not be prescribed for all. Goals from this orientation are stated in terms of personal growth, fulfillment, or developing a healthy self-concept. When a teacher encourages and rewards personal expression, psychological threat is minimized.

In an effort to help individuals develop their expressive capacities, the teacher reflects back to each individual his or her own attitudes and values so that these can be examined more fully by the students. "Free" drawing time; an art center with a variety of materials located in the corner of the classroom which is freely and spontaneously utilized by students; improvisation in movement or sound; or exploration of materials, media, or instruments without teacher-prescribed outcomes all represent an expressive orientation to the arts. The teacher represents this orientation when she focuses students' attention on the expressive qualities of art forms, encourages students to create or compose their own works, helps them entertain the intentions or motives of other artists or composers, assists them in reflecting upon their own creative processes as they perceive or make art or music, or explores with students how certain elements and styles elicit feelings and emotion. Evaluation of learning from this perspective is primarily assessed by students themselves because only they can determine how well they have accomplished their goals. However, learning also can be evaluated in terms of ideational fluency, flexibility, originality, elaboration, expressiveness, development of personal style, and deviation from the norm--or standardized, stereotypical responses. This deviation may be assessed in terms of an individual's previous performance as well as in terms of group performance. Whatever the method, the student would be primarily responsible for evaluating his/her efforts.

Art goals reflect the expressive orientation when they stress personal fulfillment, aesthetic response, developing and reflecting upon personal meanings derived from attending to art forms or creating them, creation, dispositions to appreciate art forms and those who create these unique forms, or developing expressive power (using one's knowledge and skills with expressive intent).

The Objective Orientation

Objective (from art object) theories derive their evaluative categories from the work of art as an object in its own right. The value of art is determined by the degree to which the art object incorporates various attributes in a formal organization that has organic unity and integrity. Structural attributes of works of art (lines, shape, rhythm, texture) are ordered by principles (pattern, style) operating in much the same way as language is ruled by grammar and syntax. To the extent that the arts can communicate feelings, ideas, and messages that cannot be expressed through other languages, they are perceived as a unique, but valid form of knowledge. A common theme connecting objective theories with psychological theories is structure.

The most suitable psychological theories to align with this objective orientation are cognitive psychology or information processing. Given the notion of structural integrity, this orientation also fits well with the structure-of-the-disciplines orientation. That is, visual arts or music are perceived to be autonomous disciplines or "languages" with their own distinct structures, bodies of knowledge, and methods of inquiry. Thus, learning in the arts, whether producing an artistic form or viewing/hearing it, requires a particular kind of expertise and vocabulary to be able to discriminate elements, concepts, and patterns embedded in art objects. The structure of an art form and its medium, theme, and elements are manipulated by the artist or composer as s/he creates this symbol. Thus, teaching requires guiding students in becoming proficient in the language of the arts and processing information gleaned from these symbols or symbol-making. "The . . . student engages in the processes of the artist (composer, or musician) who creates symbols, but also in the processes of the critic and scholar who interprets the symbols produced by artists" (Efland, 1983, p. 44).

Content from this framework is derived from major concepts used to classify and discuss the arts disciplines. Goals rely on the acquisition of such concepts attained by disciplined inquiry, as well as by modifying existing cognitive structures held by students. Teachers working from this orientation would engage students in disciplined inquiry toward the development and attainment of artistic or musical concepts. The teacher stressing the study of design elements (line, shape) or musical elements (pitch, rhythm) would be helping students learn and develop the language of form in either of these disciplines. The teacher would call attention to elements such as line, texture, pitch, rhythm, and so on, and how these elements are organized in principled ways to achieve "the whole," whether students are making, viewing, performing, or listening.

An art teacher may have students examine how an artist used warm and cool colors in a painting and juxtaposed these to produce a particular effect. He might engage students in understanding concepts like "overlap," "foreground, middle ground, and background," "relative space," and so on, to achieve the illusion of three-dimensional perspective on a two-dimensional surface. A music teacher might have students examine how rhythm and meter are transformed in a song to portray a mood change from "walking" to "skipping." She might engage students in identifying a repeated melody, variations on this theme, and how this repetition creates a particular musical form or pattern for the whole piece, that is, ABA form. In this orientation, evaluation of learning would be determined by the degree to which students exhibit a conceptual understanding of major concepts in the disciplines or how well students engaged in inquiry processes to achieve new knowledge and understanding with regard to these elements, patterns, symbols, and structures.

Those goals in the arts which stress learning the symbols and "language" of a discipline or its elements, major concepts, and styles are derived from

this objective orientation. One could hardly address aesthetics, history, or criticism without conceptual understanding or an initial vocabulary with which to perceive and respond to the arts. For example, even with art production or the making of art, key features related to the objective position are obvious in the NAEA (1986) statement below:

> Whatever the approach (to art production), the art making activity should not exist only for itself and is not limited to developing facility in manipulating media. Learning should focus on *ideas* that the students begin to *encounter* and then on discovering how they can best be *integrated* with all that they *have already learned* about art. (p. 12; italics added)

This particular quote reflects an orientation to cognitive structure as well as disciplinary structure. "Ideas" represent major elements and concepts in the art object; "encounter" represents the intentional presentation and focus on these ideas present in the object; "integrated" suggests that learning, like an art object, must have structure and organic unity or integrity; and "have already learned" connotes the effort to help students build upon or refine their conceptual understanding and cognitive structures.

Eclecticism

Efland (1983) suggests that an eclectic approach to the arts is the best basis for instruction, because rival orientations reflect the "true" nature and status of aesthetic theory at this time. There is no one theory in aesthetics. Thus, using all four theoretical perspectives is necessary to develop a program in arts education that best reflects the nature of the discipline. Efland forwards his notion of "representativeness" among coexisting orientations by identifying three considerations: (a) content ought to be selected from rival theories because these traditions bring to light different kinds of knowledge and value claims related to the arts; (b) content should be proportionately represented, that is, one orientation should not be emphasized in a program over another; and finally, (c) study and methodological approaches

ought to be representative in the sense that they reflect critical study, historical study, and making, production, or performance. Aesthetics are part and parcel of all three areas.

There is a contradiction in current curriculum reform efforts in the visual arts, however. It can be said that the four content areas currently espoused by the arts organizations (production, aesthetics, history, and criticism), particularly DBAE in visual arts, primarily reflect an objective theoretical orientation. The assumption is that the "structure" of the arts discipline involves four identifiable domains or areas of study--not three, nor five, and these domains are derived from adult roles in the arts. These four domains or content areas should not be confused with theories or theoretical orientations. For example, one can approach production, history, aesthetics, and criticism from a variety of theoretical perspectives or ideologies. Secondly, there is much overlap among these content domains. For example, one can hardly engage in art criticism without knowledge of art history, aesthetics, and creative processes and production. Thus, providing equitable treatment among these domains espoused by several DBAE proponents suggests a kind of "separate-but-equal" presentation of art content, even though there is much rhetoric about "integrating" these domains in meaningful ways for learners. The objective orientation seems to subsume all theoretical orientations in that it requires concepts, skills, and dispositions from all of the other orientations to operate as an integrated, structured approach to arts learning. However, DBAE's pronounced focus on art as a "structured" discipline, learning as concept development, the promotion of "tutored" images (30 students' art products may look much the same in the interest of demonstrating the concept taught and learned), and deemphasizing creativity are the best clues to DBAE's theoretical orientation.

Relationship of Theoretical and Curriculum Orientations

In Table 1, we come full circle by examining the relationship of theoretical orientations to the curriculum orientations presented earlier in this paper. The primary relationships are as follows: *Mimetic*, aesthetic theories and tenets are most closely related to curricular interests in social efficiency and skill development. *Pragmatic* theories are aligned with either social efficiency or social meliorism, depending upon the social purpose of particular activities or learning and the nature of students' participation. Pragmatic theories are learner-centered only when they emphasize individuals' interaction with the social setting and personal integration developed from social encounters, problem solving, and communicative endeavors through the arts. *Expressive* theories relate most clearly to interests in learners and their natural development, creativity, and feelings. *Objective* theories most closely align with a curricular interest in subject matter, although potential exceptions are noted in Table 1.

Despite an eclectic approach to production/performance, aesthetics, criticism, and history evidenced in theory as well as curricular goals in both art and music, objectives in curriculum documents tend to be weighted toward production, the formalistic/objective study of elements (line, shape, pattern, rhythm, melody, pitch), with only some exploration of history, aesthetics, and criticism (Kern, 1987; May, 1985). Studies of the enacted curriculum (what is presented and observed in K-12 art classes as well as teacher education classes) reveal a lopsided presentation of the disciplines in the direction of performance and production, with some focus on structural elements (Goodlad, 1984; Johnson, 1982b; May, 1985). Critical studies of the social context of arts instruction are sparse and desperately needed if we are to better understand how to wed theory and practice so that students actually have an opportunity to experience art and music from diverse epistemological perspectives.

Table 1

Relationship of Aesthetic and Curricular Orientations

AESTHETIC/ THEORETICAL ORIENTATIONS	CURRICULAR ORIENTATIONS	CAVEATS
Mimetic	Social Efficiency	technical skills development; realistic representation; common, prescribed or collective outcome toward status quo
Pragmatic	Social Efficiency	depends on purpose and desired outcome; prescribed collective outcome toward status quo; utility and feasibility
	Social Meliorism	depends on purpose and desired outcome; negotiated or student-initiated activities and outcomes toward social reconstruction and attention to social equity, problem solving and improvement; social context of learning; building a community and shared understanding; political dimensions of arts recognized
	Student-Focused	focus on individual integration and interplay of personal experience and social environment and outcomes; in Deweyan or Piagetian scheme, also focuses on students' cognitive structures and conceptual change by meaningful interaction in social context/setting
Expressive	Student-Focused	creative expression; improvisation; student-initiated and evaluated activities and outcomes; focus on feelings, emotion, and therapeutic value of the arts; student agency, experience, and interpretation
Objective	Academic/Subject-Focused	structure of arts disciplines as production, aesthetics, criticism, and history; artistic and musical forms as objects of study; "language" of the arts and the elements/systems of design/form

Table 1, Cont'd.

AESTHETIC/ THEORETICAL ORIENTATIONS	CURRICULAR ORIENTATIONS	CAVEATS
Objective (cont'd)	Student-Focused	emphasis on metacognition and student awareness of their own cognitive structures in relation to concepts/structures proposed by disciplinary experts in art and music; focus on students' perceptions in response to artistic elements, forms, structures, and organization of art objects
	Social Efficiency	curricula rigidly sequenced and content selection/organization deemed "true" and unproblematic for all settings; content and skills derived primarily from attention to "classical" works of Western civilization or status quo
	Social Meliorism	curricula focuses on communicative dimensions of artistic or musical forms; content selection and organization focuses on rival theories/interpretations and is deemed problematic; acknowledges unique settings & populations, multicultural aspects of the arts

The tension between theory and practice, production or performance, and the more complex aesthetic and critical goals espoused by arts educators and organizations remains problematic (May, in press; Rand Corporation, 1984). Thus, disciplinary experts are attempting to help teachers reconceive what it means to know and learn about the arts, recognizing that specialists "have been more thoroughly trained in art making processes [or musical performance] and feel the most confident and competent in working with [these processes]" (NAEA, 1986, p. 11). Reconceptualizing art production or performance goals, or integrating goals related to aesthetics, criticism, and history into or away from production and performance will be no easy task for arts educators or teachers. Classroom teachers and art and music specialists continue to work within unchanging workplace constraints, particularly in the time allotted to the arts in the school schedule (May, in press). Can you imagine teaching reading or mathematics only once a week, or accomplishing the above goals in art and music in only 45 minutes, once a week? Allocation of time to the arts, lengthy gaps between lessons, teacher preparation and education, and public opinion about the value of arts learning are the most persistent obstacles to reform that emphasizes the development of students' conceptual understanding and critical thinking in the arts.

PART 2--UNDERSTANDING AND CRITICAL THINKING IN THE ARTS

The nature of knowledge, understanding, and critical thinking embodies epistemological questions that have perplexed philosophers, aestheticians, psychologists, and educators for centuries. Thus, in the following section of this paper, what is offered as "critical thinking" in the arts will be introduced with a few caveats. Secondly, I will examine definitions of critical and creative thinking. Next, the nature of art and music as subjects will be explored in terms of content domains or subject(s) of inquiry. For example,

about what do we understand or think critically in art and music? Then, I will present a summary of research related to student development and highlight questions regarding development in the context of critical thinking.

Questions of Knowledge, the Knower, and the Novice

How we define artistic or musical thought and action is as much an epistemological problem as how we define the arts as bounded disciplinary areas or ways of knowing. Defining subjects as disciplines with their own inherent structures forces an artificial boundary around ways of knowing. With this definition comes the assumption that each discipline is a category of knowledge, a representational form or structure, to be studied and rendered meaningful independent of other disciplines. However, categorization sometimes makes the examination of ways of knowing more manageable, and humans are inclined to impose order on their world so they can render it meaningful. Thus, artistic or musical ways of knowing can be bounded as distinct from mathematical or other ways of knowing in order to render the arts more distinguishable as representations of knowledge. Or, can ways of knowing be so bounded?

The above epistemic problem becomes more complex when we begin examining what appear to be similar disciplines such as art and music. These two ways of knowing are linked by their cultural and historical features, their fringe status in "what counts as knowledge" in our society and schools, and their common aesthetic ancestry. Although both disciplines may be rooted in aesthetic ways of knowing, these dimensions often are not highlighted in practice. One can create art or music for commercial purposes, and neither the process nor the product need be "aesthetic" (defined later). Further, teaching and learning art or music can be just as unaesthetic and uncritical an experience as memorizing the seven major rivers of Brazil in a social studies class when the aesthetic and critical dimensions of learning are omitted. Finally, some concepts

and ideas seem to cross disciplinary boundaries, even if these ideas are created and manifested in different ways; that is, pattern, rhythm, and the larger notion that knowledge helps persons make sense of natural and social phenomena so they may engage more fully in the world.

Mathematics and science appear to be quite distinct disciplines, but they are bedfellows in their pre- and post-Enlightenment ancestry and an expressed interest in logical-deductive ways of knowing in generating theory, explanations, or solutions. Both forms of knowing, like the arts, are embedded in social and historical context and are valued for various reasons, depending on the context. However, it would be presumptuous to believe that those who engage in mathematical or scientific thinking and activity never operate with a sense of the aesthetic, values, or creativity in their disciplines. Likewise, it would be presumptuous to assert that those who engage in the arts never engage in logical thinking, problem finding or solving, or critical thinking in order to render the arts and the aesthetic accessible to themselves and others who encounter such work. "The deeper motives for productive activity in both the arts and the sciences often emanate from the quality of life the process of creation makes possible" (Eisner, 1985a, p. 28).

As disciplines, art and music are different in terms of their symbolic features and primary sensory modes of expression and response (visual versus auditory). Both are art forms or representations of human endeavor that represent creative and critical thought and activity. And, because both art and music are art forms, constructs or questions from aesthetic theory can be posed: What is the nature of art/music (what is art or music as opposed to nonart or nonmusic)? What is the nature of the artistic process? What is the nature of response to works of art? And, what is the nature of the aesthetic object or the work of art/music? How one attempts to address these questions will

reflect one's epistemological viewpoint and value claims related to the arts as knowledge.

Carving knowledge into bounded disciplinary areas risks making knowledge more inert and external to the knower than it is. In the process of educating, our conception of knowledge encourages us to conceive of learners and the teaching-learning process in particular ways:

1. Learners can be perceived as vessels to be filled with inert and separate forms of knowledge, whereupon learners are expected to make the same sense of this knowledge as we have and are left to their own devices for figuring out what these disciplines mean, how they relate to each other, and how they relate to self-knowledge, or their own "being in the world." We can assume what learners know and need to know with little inquiry.

2. Learners can be perceived as novices to be slowly and deliberately inculcated into more sophisticated adult ways of knowing, scaffolding their understanding of the arts and their concomitant discourses in the ways we have conceived and designed arts knowledge. We can suggest how arts knowledge relates to other disciplines, and we can make a conscious effort to help learners derive personal and social meaning from their engagement in arts inquiry. Or, we can take this a step further.

3. Learners can be perceived as novices who not only are to be inculcated, as above, but who also are active agents and designers of their own knowledge and the knowledge of future generations. We may conceive of learners as intuitively and informally possessing the capacity to know in the ways that adults revere, but we also can study and revere the <u>multiple</u> ways in which both novices and experts understand and demonstrate their knowledge. We may conceive of knowledge as being personally and socially constructed, ever-evolving, contestable, and located inside and outside of classrooms.

In the latter view, we also might conceive of novices as persons who should develop into enlightened critics of the knowledge forms and discourses <u>we</u> have created for them, who have the capacity to create better, if not rival forms of knowledge with consciously developed creative and critical skills. This conception of learners implies a belief that knowledge is actively constructed (personally and socially), evolving rather than inert, tacit as well as explicit, culturally contextual, and politically and emotionally contextual (or value-laden and non-neutral). The learner's ways of knowing and what this individual brings to bear in the educational enterprise is valid and valued.

To understand and appreciate conscientiously the learner's perspective and his/her "knowledgeable designs" forces us to redefine, reexamine, and reevaluate what we ourselves have designed as knowledge; how we have constructed it; what we deem worth knowing, and why; and how knowledge can be best constructed with young learners. My bias toward this third epistemological conception of knowledge is reflected in this paper.

The issues related to bounded disciplines or ways of knowing are confounded when we attempt to identify universal features of thinking writ large. For example, to address something called "critical thinking" or "higher order thinking" implies there need not be disciplinary boundaries and encourages dualistic and hierarchical thinking. If "critical" qualities of thinking exist and are desired in the study of school subjects, then there must be "uncritical" qualities that are less desirable. If "higher order thinking" exists, then "lower order thinking" must, also. Does this imply that the "higher" dimension is more important or desirable than the "lower"? Is the "lower" level embedded in and subsumed by the "higher" level? Must the "lower" occur before the "higher" can occur? Much of the research reflected in the literature reviews and the agenda of the Center for the Teaching and Learning of Elementary Subjects reject a rigid notion of thinking as hierarchical or binary. Rather, it is perceived as highly reflexive. For the moment, I will define critical thinking as disciplined ways of knowing or inquiry that allow persons to examine interconnected, complex, and reflexively constructed ideas and actions which empower the knowers to engage more fully in the world as lifelong learners, independently and collectively. Further, these ideas and forms of inquiry are strongly influenced by persons' dispositions, reflectivity, and the cultural and sociopolitical context(s) of knowledge creation and production.

Another issue related to critical thinking in universal terms is reliance on developmentalism or stage theory as an explanation for student thinking and

performance in the arts. Much research in art and music education has used stage theory (particularly Piagetian constructs) as a theoretical framework, and studies exploring children's "natural" development in terms of drawing date back to the turn of the century. Studies of learners' pitch discrimination skills in music are a sustained interest, as well. It is not until the last 20-25 years that research has focused more on students' verbal and aesthetic response to art forms, not merely their production or performance. Research focused on the social context of arts learning is almost nonexistent in music, but it has been a developing trend in the visual arts for the past few years. Thus, using universal notions about age-level capacities may prove to be either illuminating or problematic in terms of exploring student understanding and critical thinking in the arts.

In education, it would be folly to explore critical thinking only in ideal, sophisticated terms. We must attempt to better describe what, when, and how students know and understand what they do in order to know how best to co-construct knowledge with them. The zealous pursuit of universal features and stages risks imposing a premature and rigid understanding of rather fluid phenomena of human invention. Instead, we must juxtapose an evolving and slippery ideal of what it means to think critically with an equally evolving and slippery understanding of what children think and can do.

Some may perceive the resolution of the above tension as a technical matter of narrowing the discrepancy between novice and expert by gradually and "vertically" expanding the novice's repertoire of understanding toward a relatively unproblematic, adult ideal. This perception makes the novice seem deficient and his conceptions, "misconceptions." Such a view of knowledge and the knower is not appropriate for all forms of knowing, all disciplines, or all aspects of each discipline. Thus, by embracing the expert-novice notion, we

risk perceiving all knowledge generated by and possessed by experts in a given discipline as more fixed and certain than perhaps it is.

The expert-novice relationship is much more complex in that we still know so little about experts or novices in various fields. By focusing on disciplinary expertise, we limit our understanding to understanding particular fields rather than viewing knowledge more holistically, or exploring how one's expertise influences his/her other ways of knowing and being in the world (or vice versa). Therefore, if we must attend to the focus on experts and novices, we must attend to both simultaneously, thoughtfully, and tentatively, because growing understanding of one may illuminate understanding of the other. Such an approach eventually may lead us to a better of understanding of what it means for humans to know, in general, rather than who possesses what kind and degree of knowledge, and in what field. It will be exciting times when we begin to explore how knowledge across disciplines and of our personal selves enhances our ability to understand and relate to the world. With the above caveats in mind, let us now turn to critical and creative thinking as others have defined these terms.

The Nature of Critical and Creative Thinking

An excursion into creative thinking as well as critical thinking will be pursued, not because of any particular kinship of creative thinking to the arts, but because creative thinking processes appear to be quite broad and intermingle with critical processes across disciplines. This fuzzy boundary reflects a more sophisticated understanding and appreciation of the complex, reciprocal nature of creative and critical thinking, their purposes, and potential outcomes than does succumbing to earlier dualistic explanations such as those based on brain hemisphericity. Further, it is an outdated and romantic view to perceive the arts as the only province for creative thinking and

activity--or that the primary purpose of the arts is to foster and develop creativity. Neither of these assumptions reflects what is currently espoused as the primary goals of art and music education. Creativity is but one small piece of a larger picture.

Critical Thinking

Ennis (1985) defines critical thinking as "reasonable, reflective thinking that is focused on deciding what to believe or do" (p. 54). Its aim is to produce an assessment of things, beliefs, or courses of action. This definition loosely accommodates the diversity of definitions in the field. Others claim that it is difficult to reduce critical thinking to a set of isolated skills because critical thinking also is a major aspect of one's character, disposition, or values (Paul, 1984; Perkins, 1987). Definitions of critical thinking vary according to who is defining. For example, Resnick (1987) claims that some "philosophers promote critical thinking and logical reasoning skills, developmental psychologists point to metacognition . . . , cognitive scientists study cognitive strategies and heuristics . . . , [and] educators advocate training in study skills and problem solving" (p. 2).

Some key features of "higher order" thinking provided by Resnick (1987, p. 3) stretch our understanding well beyond Bloom's familiar taxonomy of cognitive objectives and better accommodate the complex character of critical thinking. "Higher order" thinking:

> Is nonalgorithmic. The path of action is not fully specified in advance.
>
> Tends to be complex. The total path is not visible from any single vantage point.
>
> Yields multiple solutions, each with costs and benefits, rather than unique solutions.
>
> Involves nuanced judgment and interpretation.
>
> Involves the application of multiple criteria, which sometime conflict with one another.

> Involves uncertainty. Not everything that bears on the task is known.
>
> Involves self-regulation of the thinking process. Higher order thinking is engaged in by individuals who are following their own step-by-step plays as opposed to those of someone else.
>
> Involves imposing meaning and finding structure in apparent disorder.
>
> Is effortful. There is considerable mental work involved in the kinds of evaluation and judgments required. (p. 3)

Higher order or critical thinking, so broadly defined, suggests that "Activities traditionally associated with [critical] thinking are not limited to advanced levels of development. Instead, these activities are an intimate part of even elementary levels . . . when learning is proceeding well" (Resnick, 1987, p. 8). Further, when we scan the above list of features, some of these features seem to describe creative thinking.

Creative Thinking

If critical thinking can be defined as "reasonable reflective thinking focused on deciding what to believe and do" (Ennis, 1985, p. 54), then creative thinking can be defined as goal-oriented, reflective thinking focused on producing a creative outcome (Perkins, 1987). Two criteria related to creative outcomes are originality and contextual appropriateness. Perkins provides an example with a credit card story: A friend found himself in a situation where he needed to cut a piece of cheese, but he had no knife. He searched for something knife-like. He "drew his wallet out of his pocket, his credit card out of his wallet, and cut the cheese with the credit card" (p. 2).

This example illustrates some characteristic features of creative thinking and outcomes. First, flexible thinking or freedom from "functional fixedness" (thinking of objects only in terms of their conventional functions) is required. It also demonstrates that creative thinking is within reach and can be engaged in by an "ordinary" person. For example, one does not have to be Mozart, Picasso, or Sandburg to engage in creative thought or activity.

Further, two criteria are operating tacitly in this activity. To be a creative way of cutting cheese, the credit card idea had to be both novel and appropriate. It would not be novel if after reading this story, the reader cuts cheese with a credit card. And, if a credit card could not possibly cut cheese, the original idea would have been inappropriate to the context and not creative.

The intentions or outcomes stressed in critical and creative thinking provide the greatest contrast between the two kinds of thinking. But even here, objectives modestly overlap. Perkins (1987) explains:

> An assessment of something can, of course, be creative. In fact, the most brilliant literary criticism is without question creative. . . . Critical assessments often and unproblematically fail the originality criterion for a creative outcome. A good assessment of a play, a business plan, or a holiday spot may be, but does not need to be particularly original. Emphasis falls on the soundness of the assessment, not on its originality. Likewise, a creative outcome may happen to be, but is not typically, an assessment. Such paradigmatic creative outcomes as paintings, poems, scientific theories, and inventions are not usually in themselves assessments of something. (p. 9)

The processes of creative and critical thinking are infused and more difficult to tease apart than are the intended outcomes, as exemplified in Resnick's list of features of higher order thinking. Although we might recognize "creative" features in some of these dimensions, there is a kind of linearity imposed upon some of the features which may not exist in either creative or critical thinking. For example, neither creative nor critical thinking may always be step-by-step or a "path," as Resnick calls it. Perhaps we impose this kind of spatial-temporal order and linearity on our descriptions of thinking because we account for these processes linguistically, or through the linearity of language in talking about it. Our sense of object-verb, sentence, story--of beginnings, middles, and ends--and the syntax of our language used to describe and explain phenomena risks imposing a narrow definition of critical or creative thinking and lists of features.

In the literature, there are at least three views of the processes of creative thinking: (a) the potency viewpoint, (b) patterns of thinking, and (c) values (attitudes, commitments, aspirations). The *potency* viewpoint suggests that creative thinking depends on the power to generate original appropriate ideas. Idea generation (such as ideational fluency and flexibility) is a cognitive operation that works with more or less power to produce creative outcomes. "Despite the popularity of the fluency, flexibility, and remote associate models, empirical research has largely disconfirmed *potency* theories of creative thinking" (Perkins, 1987, p. 4). Measures of ideational fluency and flexibility rarely correlate with real-world creative achievement in adults (Mansfield & Busse, 1981; Wallach cited in Perkins, 1987; Wallach, 1976).

When we examine *patterns of thinking*, we look at the ways in which creative people deploy whatever cognitive operations they use (selection, emphasis, timing, and direction, for example). "The question becomes not whether certain cognitive operations are powerful, but how a person organizes whatever powers are possessed into patterns of thinking that yield creative results" (Perkins, 1987, p. 5). One example of patterned thinking is problem finding (Getzels & Csikszentmihalyi, 1976; Mansfield & Busse, 1981). Problem finders invest unusual time and effort in certain phases of the artistic or scientific process. They also find an initial direction, yet are open and constantly pursue changes in direction. For example, the real problem in the credit card dilemma was not finding a knife, but being able to define the problem more broadly: finding something knife-like. Defining the problem more broadly could have yielded several other plausible solutions besides the credit card.

Another pattern of creative thinking is Janusian thinking, or the tendency for inventive people to think in opposites or contraries and to synthesize these as creative outcomes (Rothenburg, 1979). There is empirical evidence

that creative thinkers possess a persistent mental set to discern opposites and put them together. As another pattern of thinking, brainstorming (Osborn, 1953) systematically defers judgment so as to not inhibit the flow of ideas or possibilities. It is plausible to believe that creative persons privately engage in this pattern of thinking, whether or not they call what they do "brainstorming," as popularly used with groups as a discussion method in the endeavor of problem solving. Challenging assumptions may also figure prominently as a tactic or pattern of creative thinking. Perkins (1987) suggests, "Whereas the [research] evidence on potency perspectives tended to be negative, we have at least some evidence supporting a 'pattern of thinking' perspective" for creative thinking (p. 6).

The clearest evidence of creative thinking processes is derived from the examination of *values or dispositions*, broadly construed. Creative people have creative values. They are autonomous thinkers who resist conformity, enjoy originality, and delight in expending effort to find or create something original. These values, commitments, aspirations, or dispositions in creative artists and scientists have been well-documented (Barron, 1969, 1972; Getzels & Csikszentmihalyi, 1976; Manfield & Busse, 1981; Roe cited in Perkins, 1987). Enjoying originality is just as important as being able to recognize it. For example, some persons--including children--may be able to discriminate originality in paintings but dislike the originality (Ahmad, 1985; Getzels & Csikszentmihalyi, 1976; Perkins, 1987). Creative persons also possess a high tolerance for ambiguity, disorganization, and asymmetry and enjoy encountering or coping with such situations. Perkins (1987) suggests that "conspicuous creativity often emerges because the person in question is trying to be more creative--trying to produce things original and appropriate. Much more than we usually suppose, creating is an intentional endeavor shaped by the person's values" (p. 7).

Another fruitful excursion important to understanding the dimensions of critical and creative thinking--no matter the discipline--is understanding the nature of *imagination*. Imagination contains content of some sort, and it is not simply producing descriptions of an object or event which one is unprepared to assert. When one imagines, one is speculating and not typically aiming at a definite assertion as to how things are. One goes beyond what is strictly given. However, not just any way of "going beyond the given" will count as imagining *X* or what it would be like if *p* (Scruton, 1974). Imagination has a primary object (the *X* or *p* that must be imagined) and a secondary object (how *X* or *p* is described). In this sense, imagination is a logical activity. Scruton (1974) explains:

> [A person] who imagines is trying to produce an account of something, and is, therefore, trying to relate his thoughts to their subject-matter: he is constructing a narrative, and to do this it is not sufficient merely to go beyond what he has already "given." It is necessary that he should attempt to bring what he says or thinks into relation with the subject: his thoughts must be entertained because of their "appropriateness." (p. 98)

In imagining, propositions are entertained for a reason, and the reason is to be found in the subject matter of the imagining and nowhere else. Thus, imagination requires plausibility and appropriateness in terms of both creative and critical thinking.

As Perkins (1987) asserted, creative thought is a deliberate, cognitive activity based upon a criterion of appropriateness. In either creative or critical thinking, an outcome can be imaginative or novel, but it also must be appropriate and plausible. Perkins' model of thinking involves several dimensions or concerns, most of which are discussed in much of the literature in cognitive psychology and information processing. These are metacognition, ways of thinking, cognitive processes, repertoire of skills, content knowledge, styles and modalities, and development. Creative thinking is one way of

thinking, along with its sibling, critical thinking. It differs in its intent to produce a creative outcome.

What might these kinds of thinking look like in the arts? Both creative and critical thinking require *metacognition*. A student can learn to be mindful of the factors that contribute to creative or critical thinking and learn to monitor and control her thinking processes to a significant degree. She also can learn to deploy various patterns of thinking which are known to foster creative or critical results. Thus, in order for metacognitive strategies to work for her, she must not only learn to reflect upon her own thinking processes, but she also most know about, comprehend to some degree, and be able to employ patterns of thinking that are known to stimulate fruitful creative or critical results.

Cognitive processes such as comprehending, creating and expanding, conceptualizing, composing, argumentation, inquiry/research, problem solving, synthesizing and integrating, and decision making apply to both creative and critical thinking. "Conceptualizing something may demand one's full creative resources to see through to a new way of organizing the information available" (Perkins, 1987, p. 9). Painting a picture involves not only selecting and manipulating materials but also deciding which artistic elements will be used and organized in certain ways, conceptualizing a pattern or theme and composing the elements into an integrated whole with revisions and ongoing critical assessment, encountering the potential and limitations of the media or strategies selected and solving problems related to these, and considering one's expressive and communicative intent in relation to how the work may be perceived and understood by others. The above processes also are used in thoughtfully responding to another's work of art or musical composition or performance and its features.

A *repertoire of skills* is required in both critical and creative thinking processes. Students must invest in exploring and selecting purposes to employ creative and critical thinking. Being able to gather, organize, and access pertinent information can be as crucial in a creative endeavor as a critical one. Skills in visual and auditory discrimination, memory, technique, and so forth are important in creative and critical endeavors in art and music.

The notion of *content mastery* is a dimension of thinking which remains debatable. Does one's creative or critical thinking depend upon a "solid" grasp of content or mastery, or are creative and critical thinking cross-cutting and generic among some or all of the disciplines? Does a first grader need a great deal of experience and understanding of art or music before he can think and act in creative or critical ways? There is research that suggests creative and critical productivity depends upon mastery of particular content in areas such as chess (Chase & Simon, 1973); problem solving in physics (Chi, Glaser, & Rees, 1982; Larkin, McDermott, Simon, & Simon, 1980); mathematical problem solving (Schoenfeld & Herrman, 1982); computer programming (Soloway & Ehrlich, 1984); art (Clark, Day, & Greer, 1987; Perkins, 1987; Rush, 1987); and music (Beardsley, 1981; Serafine, 1986). According to Perkins (1987), the features and characteristics of creative thinking processes may be more cross-disciplinary than critical thinking processes. The disposition to search out problems, challenge assumptions, or attend to the aesthetic qualities of something are tendencies which seem unbounded by any particular discipline. Likewise, the disposition to solve problems, consider alternative arguments, entertain several plausible or novel solutions, and to make reasoned judgments does not seem to be the province of any one discipline.

It can be argued that too much knowledge or mastery may inhibit creativity. A psychological basis for this is that as expertise accumulates, more and more knowledge is compiled into highly context-specific, automized forms,

rendering scrutiny or challenge difficult and the knower resistant to change (Anderson, 1983). In other words, the more one knows about a particular area, the more one could become trapped by a particular repertoire of skills, procedures, or routinized thinking. By adult standards, both creative and critical thinking generally require some mastery of content, which, according to Perkins (1987), "is a context-specific matter of talent, will, and extensive experience" (p. 11).

The earlier discussion regarding critical thinking abilities in the early years of elementary school contradicts the idea that one needs a large store of content or expertise before one can think or act creatively and critically. What is needed are numerous experiences and encounters with art and music in order for students to be able to develop conceptual understanding of content or skills in creative and critical thinking. It seems fair to say that developing thinking skills must be directed toward some content or object of inquiry. If we wait for "mastery" of content, we may be waiting a long time to introduce creative and critical thinking skills and activities.

Styles or modalities are a dimension of thinking presented by Perkins (1987), but these are given little attention. He believes that creative thinking is independent of a preference for a particular learning style. Rather, such a preference may influence the kind of creative thinking that occurs. Perkins sees creative thinking as a style or texture of thinking, or a cluster of characteristics identified with creative thought and behavior. Thus, he does not equate creative thinking processes with any particular learning style or modality. Even if one embraces the notion of learning styles, one still is left with the practical and ethical question of whether individual learning styles can and should be identified and accommodated by instruction, or whether instruction should purposefully nurture or expand children's styles in directions different from their preferences.

What Are Art and Music as "Subjects" of Study?

The Arts as Symbol Systems and Languages

What is one learning when one engages in making, performing, or responding to art forms? Most art and music educators would reply that one is gaining facility with the languages of two distinct symbol systems. The analogy of art and music as representational or symbol systems akin to language is not far-fetched. The arts utilize distinct, organized symbols which communicate, rules and principles that govern making or perceiving art forms, different representational styles within any given symbol system, and what Eisner (1982b) calls "figurative syntax."

Serafine (1986) suggests that music is language-like because it is universal in two ways. "No culture exists without it, and nearly everyone acquires or participates in some form of music" (p. 320). Not everyone is a performer or composer, but everyone is capable of listening to and understanding some form of music; everyone can distinguish music from noise or other sounds; and everyone can discriminate "our music" from music of other cultures. Like language, art and music styles and forms change and evolve over time; they are not fixed. One learns the musical language of his group; thus, musical knowing is culturally contextual in that one learns a set of rules, procedures, or axioms that apply to his culture. Even though such rules or principles may be difficult to articulate verbally, these generally are understood implicitly or informally. Serafine (1986) provides an example:

> The competent listener does not need conscious awareness or formal knowledge about dominant and tonic chords in order to understand or experience the feeling of finality that they engender. He has only to have acquired sufficient experience with multiple instances of the style (compositions) so that the piece of music "sounds ended" when its end is reached. (p. 322)

Making and perceiving art or music are both symbol-producing and perceiving activities with certain common characteristics and differences, depending

on the symbol system and forms involved, such as configurations of paint on a canvas or a musical arrangement of sounds (Perkins, 1980). Art is primarily a symbol system of visual images; music is one of sounds (although it also includes visual symbols in notation). To become competent in the arts, "it is necessary to gain literacy with these symbol systems. And so the artistically [or musically] competent individual is one who is able to 'read' and to 'write' symbols in such realms as literature, music, or sculpture" (Gardner, 1983, p. 47). Thus, knowing in the arts implies facility with manipulating and perceiving symbols. Knowing in art and music also includes an aesthetic mode of knowing, even though the aesthetic may be experienced across disciplines and in everyday life. Eisner (1985a, p. 28) suggests:

> All things made, whether in art, science, or in practical life, possess form. When well made these forms have aesthetic properties. These aesthetic properties have the capacity to generate particular qualities of life in the competent percipient. (p. 28)

Eisner defines "form" not only as an attribute or condition of things made (such as a painting or piece of music), but as a "process through which things are made. Knowing how forms will function within the finished final product is a necessary condition for creating products that themselves possess aesthetic qualities" (p. 28).

What makes a way of knowing "aesthetic"? Eisner (1985a) suggests that "it is through aesthetic experience that we can participate vicariously in situations beyond our practical possibilities" (p. 28). In other words, the aesthetic has a referential function. Through Twain's well-crafted characters, action, and dialogue, we can experience American culture and the lives of persons within this culture after the Civil War. Through one of Monet's paintings, we can dwell beside a lily pond in the summer and experience light and patterns of color on a cold January day in the Midwest. "Knowledge of . . . the aesthetic is knowledge of the aesthetic qualities of form, per se. We become

increasingly able to know those qualities we call aesthetic by our developed ability to experience the subtleties of form" (p. 28). We develop these discriminating abilities through the number and quality of our encounters with art forms. Finally, the aesthetic is motivated both by our need as humans for stimulation and our need to give order to our world (Eisner, 1985a).

Whether we understand the arts as a language, a symbol system, or an aesthetic mode of knowing, we see that learning and knowing in the arts is a communicative endeavor that entails active cognition and encounters with art forms through creating, composing, performing, viewing, and listening. Further, we notice that several writers from different perspectives acknowledge the more informal and tacit dimensions of knowing and cognition. Children and adults know and understand far more than they can articulate. To Polyani, we hold lenses or schemata through which we meaningfully apprehend our worlds. All knowledge <u>of</u> rests upon knowledge <u>from</u> one's personal experiences and interpretive framework. "What we know <u>from</u>, we know tacitly. We know, therefore, far more than we can tell" (Polyani cited in Bowman, 1982, p. 76). What we know tacitly undergirds and gives meaning to all that we explicitly know and encounter.

Eisner (1982b) provides an example that illustrates the importance of personal experience and tacit understanding in the ways in which different people might encounter and appreciate the same object. (I embellish his example.) Imagine that you are on a country road approaching a covered bridge. Imagine how the following persons might view and think about this bridge as they encounter it: an architect, engineer, landscape artist, poet, lost tourist, American historian, an octogenerian farmer from the area, and a 1990s child from an urban, ghetto setting. Each person would derive individual meaning from his/her encounter with the same object because of different personal experiences. Each might know something more, less, or different from what we may wish to tell him or her about this bridge, or what facts or features to attend to about this

object. "Each construes the bridge in different terms, the terms with which each is most competent" (p. 33).

For persons like Arnheim (1969), Eisner (1982b), and others, expressive and aesthetic elements are the core of cognition; cognitive development hinges on the number and qualities of encounters with the aesthetic; and developing this kind of cognition requires the development of a disposition toward the aesthetic. Bowman (1982) suggests:

> One's commitment to music [or art] derives not from the systematic accumulation of facts but from the satisfaction gained in personally meaningful musical [or artistic] experiences. Unless what is learned factually rests upon a tacit foundation of personal understanding, personal experience, personal involvement with musical [or artistic] expression, it is destined to be essentially superficial and meaningless. (p. 81)

Rather than capitalizing on the intuitive and tacit skills and understandings students bring to the classroom, we tend to "disregard them and proceed by our rigidly analytical approaches to musical [or artistic] learning, thus systematically neutralizing that which we should be striving to enhance" (p. 82).

Whether we call these tacit understandings "schemata," "conceptions," "prior knowledge," "lived experiences," "cognitive structures," or "lenses" makes little difference. What matters is how we perceive these dimensions to be powerful or inadequate in their existing forms because it is this perception that will guide what we choose to do with students.

Primary "Content" Areas in the Arts

In Part 1 of this paper, I suggested that the current focus on goals and content in art and music education emphasizes an objective, theoretical orientation to the study of the arts as opposed to a mimetic, expressive, or pragmatic orientation. This means that the arts disciplines would be perceived as structures, languages, or symbols systems (distinct from one another), which are to be encoded, decoded, manipulated, and appreciated. The study of art objects or

musical forms are emphasized, which includes examining the formal organization and organic integrity of these forms, their elements or structural attributes, and the principled ways in which these elements are organized to convey meaning. Approaches to teaching and learning from this perspective would emphasize cognition, information processing, and concept development.

In the earlier discussion on "discipline-based art education" (DBAE), the primary content areas to be studied in the arts disciplines are based upon what aesthetically literate adults do with this disciplined knowledge: production or performance, aesthetics, history, and criticism. Adult "experts" in the visual arts discipline may engage in several different activities. They may create art objects; know how to appreciate art forms created by others; understand art works in social, cultural, or historical context; make informed judgments about works of art; or engage others in the examination of particular art objects or trends and the value of these through criticism. They may perform in specialized roles such as artists, critics, aestheticians, historians, curators, or managers; such roles require particular experience and skill in understanding the cognitive and aesthetic dimensions of art and its significance. However, artistic knowledge, understanding, and appreciation are not limited to those who do such work. Aesthetically literate adults who do <u>not</u> perform any of these specialized functions are aware of and/or knowledgeable about one or more of these dimensions in understanding and appreciating art as a distinct way of knowing, or what artistic expression contributes to human understanding and activity.

"Experts" in the music field also engage in several activities: They compose music; perform as musicians or vocalists; conduct others in the performance and interpretation of music; know how to appreciate music created by others; understand music in social, cultural, or historical context; make informed judgments about musical works; arrange and orchestrate music for others

to interpret and perform; or, through criticism, engage others in the examination of particular musical forms or trends and the value of these forms or trends in social and historical contexts. They, too, perform specialized roles and functions. But again, aesthetically literate adults who do not perform any of these specialized tasks are tacitly aware of and/or knowledgeable about one or more of these dimensions of musical understanding and music's contribution to human understanding and activity. Serafine (1986) claims that "style principles or rules are acquired whether the behavior in question is composing, performing, or listening" (p. 322). Thus, the content foci currently espoused across both art and music education are derived from the perceived "disciplines" of art and music and adult roles, interests, and functions within these disciplinary frameworks. All of the above activities are collapsed in the DBAE rhetoric into production or performance, aesthetics, history, and criticism.

Creation, Production, and Performance

Artistic production or performance traditionally means the making of art or music, the development of technical skills, and the creative processes inherent in this production. However, production and performance defined today are more than recreational, exploratory, technical, or creative endeavors. For example, embedded in production or composition are opportunities to learn about and utilize the formal elements and properties of aesthetic forms (line, shape, pitch), aesthetic judgment, problem solving, and gaining a better understanding of the creative process used by other artists or composers who have engaged in a similar creative problem, and critical thinking.

However, what is typically seen in practice today is a focus on production or performance that introduces and explores a variety of media, materials, or songs with attention to technical skills, imitation, and some attention to concepts such as the elements of design or music. The scope of such a curriculum

is broad in terms of media or songs encountered but lacking in depth--not only in terms of understanding the expressive potential and qualities of these media or forms, but also in terms of artistic and musical concepts and the aesthetic, critical, or historical dimensions of arts knowledge. Also, there would be little attention to a well-articulated, grade-level sequence or artistic and musical concepts, except haphazardly, and little to no attention given to formal evaluation of learning.

Aesthetics, Appreciation, and Response to Art and Music

Traditionally, aesthetics has been defined as one of the major branches of philosophy that deals with art and examines the nature of "the beautiful." In its most liberal sense, aesthetics deals with feeling. "The fine arts are regarded as generative of feeling, and they cultivate" a sense of beauty (Eisner, 1982a, p. 87). Aesthetics also is referred to as "appreciation" or "response." Rather than connoting the making of art or musical forms, aesthetics connotes the experiences with and appreciation of such forms and their creators. Further, "doing aesthetics" among adults does not always require art forms as referents because such activity is an intellectual enterprise dealing with questions of art and nonart, beauty, the creative process, and one's feelings, as well as the study of art or musical objects.

In an elementary classroom, students would engage in activities that promote their abilities to analyze the structural content of art or music by responding to elements, principles, or other sensory qualities in these forms; perceive and interpret symbolic or expressive subtleties (mood or feeling) in art or musical forms; and become aware of their own and others' perceptions, responses, feelings, and interpretations of visual or musical forms. An aesthetic attitude toward an art object leads to thought and emotions characteristic of imagination, discussed earlier. Scruton (1974) reminds us:

> Imagination is simply one way of thinking of, attending to, a present object (by thinking of it, or perceiving it, in terms of something absent). In aesthetic appreciation, we might say, the object serves as a focal point on which many different thoughts and feelings are brought to bear. (p. 155)

Understanding aesthetics or participating in discussion focused on aesthetic features of objects or response is not beyond the intellectual grasp of youngsters. Aesthetic propositions and issues can be an integral part of classroom discourse. A teacher engages students in aesthetic thought when she asks how a picture or musical work makes them feel, and why; when she suggests that when students paint their pictures, they "plan their colors so that when their parents look at it they will feel the way you want them to"; (NAEA, 1986, p. 16) or when examining a 200-year-old portrait, she asks, "How do you feel about the person? Do you think your feelings are the same or different from the way people felt about it when it was first painted?" (p. 16). Students can explore how and why they feel the "bigness" and "slowness" or the comic characteristics of elephants when they listen to part of Saint-Saens' Carnival of the Animals. They can discuss why they feel string basses communicate elephant behavior better than piccolos, based upon their personal knowledge about elephants and instrument timbre, and the feelings these animals, objects, and sounds convey. They can explore how they think the composer felt about elephants--or music, based upon his musical choices.

When teachers address the aesthetic dimensions of disciplines, they introduce students to ideas about how they respond to art forms and how beauty can be created and found in natural and human constructions and forms. They assist students in exploring aesthetic response and why there are individual differences in the kind, quality, strength, and importance of human response to organized visual images or musical works.

Social and Historical Understanding of Art and Music

The study of art of music involves the investigation and interpretation of artistic forms in social and historical context. Such study is deemed important so that youngsters can "see and explore how humankind has expressed ideas and recorded experiences" (NAEA, 1986, p. 19). Adult art and music historians "aspire to describe, analyze, and interpret individual works of art by identifying their materials and modes of production, their makers, their time and place of creation, and their meaning or function--in short, their place in the scheme of history" and society's fabric (Kleinbauer, 1987, p. 209).

Today, art and music educators would not support the traditional chronological approach to teaching art or music history patterned on dates, names, and styles with a major emphasis on European traditions. Instead, they would emphasize helping students develop an awareness of how artists and composers have dealt with problems of artistic expression similar to those that students encounter. They would want students to develop an awareness of the arts within the total structure of society, as well as across cultures and styles. Also, they would want students to understand and appreciate the arts as having many roles and functions in society and that these forms are created in social, cultural, historical, and political context--in the present as well as in the past.

Criticism in Art and Music

Criticism involves evaluating the effectiveness, worth, or success in generating significant responses of artistic or musical forms. Adult critics in the fine arts may use concepts in aesthetics to "do criticism," however, these concepts are used primarily as "vehicles to illuminate the qualities of individual works of art or of artistic styles or schools" (Eisner, 1982a, p. 87). Thus, criticism engages students in opportunities to learn how to arrive at

reasoned judgments based on sufficient and appropriate criteria. These judgments require an object referent (art object, musical piece or performance) as well as prerequisite understandings and skills about art or music.

Criticism in the elementary classroom would engage students in describing, analyzing, and interpreting art objects or musical works. In order to do this, students need an aesthetic vocabulary and at least a rudimentary conceptual understanding of terms and concepts peculiar to a discipline. They need to be able to "read" or use the symbol systems associated with art or musical forms. "Students need to learn how to look at works of art [or listen to music] and make comparisons between them so they can judge quality, impact, purpose, and value" (NAEA, 1986, p. 17). Criticism can engage students in examining adult products as well as their own, and it requires reasoned judgment that can be defended as well as contested. Developing critical skills moves students beyond rather vacuous responses such as "I dunno . . . I just like it" or "It stinks!" Critical responses acknowledge and utilize the vocabulary and concepts of a discipline, rely on the logical development of an argument which is focused on a response to an art or musical object, encourage the exploration of assumptions behind one's thinking, and are open to rival interpretations given the same or different criteria upon which to base a judgment.

In order to engage in effective criticism, one must understand the vocabulary, rules, principles, and symbols which can be utilized in the creation, viewing, or listening of art objects or music. It also is difficult to critique a work of art or musical piece without knowledge of this object's social and historical context. One has difficulty critiquing art forms without understanding how artists, composers, or performers make informed choices in the creative act, or how audiences might attend to an art object or respond to it as a result of the decisions and intentions of the creator. One has difficulty responding to an art object or appreciating it (aesthetics) without making some

judgment about the object (criticism) and the significance of this encounter for oneself (aesthetics) or for others (criticism, history).

While criticism in art and music seems most closely linked to critical thinking, it is not the only province of critical thinking in the arts. Critical thinking in art and music can occur in the planning stages and during the creation of artistic and musical forms or performances. What has been lacking in practice is attention to critical thinking during these phases of production where teaching and learning have focused so heavily on production, performance, and imitation with little attention to reflection, metacognition, or classroom discourse that would enhance critical thinking skills and the ability to do criticism.

Perhaps it is fairly obvious to the reader by now that it would be difficult to teach or learn any of the above content areas in isolation from the others if one were emphasizing critical thinking. Fragmenting a discipline artificially (i.e., <u>making</u> art in one lesson and doing criticism unrelated to this lesson in the next lesson) leaves the difficult task of integrating the content to the student, who already has enough difficulty making sense of any one area. Integration is vital in the discussion and practice of aesthetics and criticism. In fact, few authors are able to address their single topics or content areas (i.e., aesthetics, history, or criticism) without mingling and confusing these areas with other ascribed content areas (Crawford, 1987; Kleinbauer, 1987; Spratt, 1987). It is no wonder that art or music "appreciation" as a term has a long tradition of broad meaning: aesthetics, history, and criticism all lumped together, albeit distinguishable from production. Perhaps fragmenting the arts disciplines into four domains or content areas is a rhetorical and political device to call attention <u>away</u> from production and performance in the arts. The emphasis on production and performance in practice is criticized by most art and music academics and educators today.

We now turn our attention to research in the arts related to child development and the potential influence of development in fostering student understanding and critical thinking.

Paradoxes in Human Development in the Arts

One of the dimensions of thinking presented by Perkins (1987) related to creative and critical thinking is development. Unlike 40 years of traditional thinking which held that children and their artistic products were "naturally artistic," contemporary educators (particularly those in the visual arts) view creativity from an adult perspective. Creative productivity in the mature sense (defined as both original and contextually appropriate) is not automatically present early in life and must be developed over time. The perception of "child as artist" is a halo effect. We risk interpreting children's behavior in terms of what we wish to see in children or long to retrieve in ourselves as adults.

"Losing" Creativity--the U-Shaped Curve

Traditionally, the ability to think critically has been viewed by developmentalists as a rather bumpy, but predictable and straightforward trajectory toward sophisticated adult thinking. However, as presented earlier, most researchers today agree that not all children eventually "grow into" critical thinking or Piaget's "formal operations" during adolescence, and not all adults demonstrate this sophistication in their thinking. Also, some preschoolers demonstrate capacities to think critically, and they have the ability to further develop these capacities as they mature.

Unlike critical thinking, creative thinking or productivity has not been viewed traditionally as a smooth trajectory toward the more sophisticated creative behaviors that all adults possess. Several researchers have documented and lamented a "U-shaped" curve indicating a slump in creative behavior from

around fourth to seventh grades in both artistic and metaphorical behavior. Others document the drop in creative output as early as first and second grades. This slump often has been explained as a kind of "Bermuda Triangle" or "black hole" in creative development. Somewhere in this mysterious dip, and for some unknown reason, creativity is forever submerged or lost to all but a few fortunate adults who escape, unscathed. This is a romantic notion.

Contemporary researchers are more inclined to explain this U-shaped phenomenon as a negative effect of schooling or a natural "literal" phase during which children become preoccupied with learning the norms, conventions, and technical skills of their culture. For example, some children at this age judge art objects only on their representational merit (how realistic the objects look) and often request technical assistance in making their own art look more "real." However, some studies demonstrate that there is no loss of creative ability during this period, but rather a shift in children's attitudes and interests (Perkins, 1987). When children are asked to perform various tasks in a more imaginative manner, they can do so at least as well, if not better than younger children. However, many children never seem to "recover an interest in playing with drawing or language in creative ways" (p. 12).

Even though some experts may assume that students this age wish to be technically skillful in a realistic style, other findings contradict this belief. For example, Zurmuehlen (1977) found that teachers seem to prefer realistic representation and detail in students' work. Thus, what we observe in children may be the effect of teacher preferences and perceptions of what counts as "good" art or artistic skill. Students this age actually may resent and resist teacher requests to create art in a realistic style. In one study, student perceptions of the "least favorite" and "most difficult" art lessons over two years were those where realistic representation was emphasized and perceived as such by students (May, 1985).

The most important art goal to youngsters and their parents in the above study was "creative self-expression," not learning how to draw realistically, learning about the elements of design, or learning about other artists and their work in the past or present. An unexpected finding in this study was that parent preferences for art goals (in terms of what they wished their children would learn as a result of art study) varied by socioeconomic status (SES) in both open-ended and multiple-choice responses on questionnaires. The higher the SES of parents, the more important were goals that emphasized creative self-expression and art appreciation. The lower the SES of parents, the more there were references to goals pertaining to the practical utility of the arts (matching clothes, decorating one's home, and learning to follow directions).

D'Onofrio and Nodine (1981) noted that with increasing age, children become better able to recognize and appreciate the viewpoint of the artist, and to consider subjective intentions of the artist and creative decisions involved in making art. By the upper elementary grades, students adopt the view that art is a personally determined and subjective event "devoid of social consequences and import" (Johnson, 1982a, p. 65). These findings contradict those related to the U-shaped phenomenon or "literal" stage of development. The desire to derive personal meaning in creating art, interpreting it, or in appreciating the creative expression of others persists in the minds of many children throughout elementary school.

This privatized and personalized conception of art knowledge may be the result of the implicit and "null" curriculum in schools (Eisner, 1985b). The fringe status of arts in the school curriculum and instruction, focused primarily on production and performance, may contribute to children learning that the arts are recreational, not really "basic," and that art and music are matters of personal expression. For example, in my study (May, 1985), although art was perceived by children as very important to them personally (87% and 93%

of 144 third and fourth graders), it was not perceived as important as reading or math (67% and 86%, respectively). That instruction may not focus on other important dimensions of arts knowledge (aesthetics, history, criticism) is an example of the "null" curriculum. The absence of these curricular dimensions teaches children, nevertheless, what counts as arts knowledge (e.g., knowledge of how to produce art or perform music).

Whether the U-shaped curve is a natural developmental phenomenon, a negative effect of schooling, or even really exists leaves one perplexed. It is more productive to think that children have a range and store of informal experiences; they enter and progress through school with various attitudes and values toward both creative and critical behavior (in part, shaped by peers, parents, and teachers); and while developing these attitudes and dispositions, they also are developing patterned ways of thinking about art and music. According to Perkins (1987), the fallacy of perceiving a U-shaped curve in creative production is that the "creativity lost" was not mature creativity in the first place. Thus, how can one lose something one never had, at least by adult standards?

The other fallacy mentioned too little in research is that most art and music researchers are guilty of focusing too much on cognition and development apart from the social context of schooling and its influence on what children have an opportunity to learn and construct as arts knowledge. There is ample documentation to illustrate how classroom discourse and activities in most school settings are routinized and flat in quality (Goodlad, 1984) and how many teachers teach, and learned how to teach (Cuban, 1984; Frattallone, 1974; Lortie, 1975; Prater, 1983). More importantly, structural constraints impinging upon classroom teachers and specialists (i.e., time allocation, scheduling, and school organization) do not enhance quality teaching or learning in art and music (May, in press).

Developmental Trends in "Production"

By "production," I am referring to what students typically do or are able to produce in art and music, as defined by research. In art, Sommerville and Hartley (1986) explore the importance of pictorial activities for both children and adults:

> People have a universal interest in pictures, maps, and other methods of depicting the world. Pictures and maps are valued both as aesthetically pleasing creations and for the information and ideas which they convey. . . . [Further], psychologists have found that the conventions which we use reflect our cognitive structuring of experiences of objects and events. (p. 242)

As students progress through various stages of graphic representation, one might ask: Do these changes reflect and depend upon changes in students' growing understanding of the world? We know that children develop knowledge of both cartographic and pictorial systems (Davis & Fucigna, 1983) as well as literal and metaphorical modes of language use (Winner, 1979; Winner, Blank, & Miller, 1983). Sommerville and Hartley (1986) raise another interesting question related to these parallel systems of representation: Do students' knowledge of the different systems develop separately or is one an offshoot of the other, therefore, appearing somewhat later? For example, around seven or eight years of age, children seem to realize that an "X" can appropriately represent a house on a map, but not in a picture; or, an aerial perspective is more appropriate for a map and a frontal perspective for a picture.

From research, we have learned that students follow certain cognitive strategies and rules when engaged in drawing (Freeman, 1980; Goodnow, 1977; Van Sommers, 1984). Also, children's drawings have been examined in terms of how spatial relations are represented and how these representations change over time (Kellogg, 1969; Lowenfeld & Brittain, 1970; Piaget & Inhelder, 1967; Willats, 1977). Some of the changes are illustrated in children moving from drawing single lines or shapes to represent whole objects to connecting parts

and smaller shapes to make whole objects; or, drawing with separate lines and moving to the use of a continuous line for drawing some objects. These strategies relate to the representation of parts in a drawing.

Other strategies relate to sequential steps and placement rules that govern the composition of separate parts into a unified whole, that is, a picture. For example, very young children draw related, but "floating" objects. By first grade, most students place or "ground" objects by using a base line at the bottom of the page (grass, street, floor, etc. with sky at the top of the page). In three-dimensional media such as clay, many students at the elementary level use an additive method to create objects rather than pinching and pulling out parts from the mass (when objects are more complex than snakes or pancakes). They often use two-dimensional strategies to create or embellish three-dimensional objects (i.e., drawing or inscribing facial features into a sphere of clay with a pencil rather than pinching and pulling features that advance and recede from the mass). This may be due in part to the heavier focus on two-dimensional production in elementary school rather than student development, cognition, or preference.

Children develop rather predictable strategies to depict perspective, from X-ray or overlay drawing to overlapping objects and shapes and varying the size, relation, and placement of these objects on a page. Willats (1977) found that children progress through a number of stages in perspective representation from about five years old to adolescence, which he claims demonstrates changing cognitive attempts to solve the perspective problem. Willats (cited in Perkins, 1987) claims that 5- to 11-year-olds' drawings of various three-dimensional shapes can be distinguished into two kinds of representational systems: the transformational and denotational. For example, Phillips, Hobbs, & Pratt (1978) found that 7-year-olds copied the same two-dimensional pattern differently when they were told the object was a cube or a set of lines. Thus,

knowing the intended representation has a strong effect on the kinds of renderings students might make. Finally, Goodnow (1978) and others have noted that children progress through stages when depicting movement in their drawings. As children become older (age 10 or 11), they are more likely to modify more parts of a figure (show a person bending at the knees, waist, etc. rather than modifying only one part, i.e., exaggerating one limb), or they might draw a profile or side view of a figure in movement rather than depicting one straight-on when illustrating running.

There has been some investigation of the aesthetic or expressive qualities, individual styles, or sense of balance and harmony youngsters utilize in their work (Gardner, 1980; Sommerville & Hartley, 1986; Winner, 1982; Wolf, 1983). Recent research demonstrates that children develop individual styles quite early, and adults are able to identify and categorize children's drawings by style with accuracy (Sommerville & Hartley, 1986). Individual style can be identified by expression (intended meaning), form or technique, and subject matter. Further, in longitudinal case studies it has been noted that an individual's style gradually evolves and changes over time.

Probably the literature most familiar to readers is that which identifies stages and ages of artistic development/production. The specified ages and labels for these stages differ by author, but there are similarities. Generally, development in art production related specifically to the K-6 level is said to move in the following direction: schematic or symbolic, dawning realism, and pseudorealism (Chapman, 1978; Feldman, 1970; Gaitskell, Hurwitz, & Day, 1982; Lanier, 1983; Lowenfeld & Brittain, 1970; McFee & Degge, 1977). Students first develop, combine, and utilize graphic signs and symbols to depict objects and events in the world (at around five to eight years old). As students get older, most become extremely interested in realistic representation (making their work "look real") and quite discouraged when they cannot reproduce the

realistic qualities of objects that they perceive in the natural world or in other artists' work. Lanier (1983) comments:

> As children develop their ability to render space, figures, and objects in their own creations, they also grow in their interest in aspects of the visual arts in the world around them. . . . They are perfectly willing to react favorably to the vernacular arts--cartoons, comics, and visual "stories" of all kinds--in much the same way that adults respond to the fine arts. They prefer direct and simple images, like comics, and respect and recognize skill in craftsmanship. They are very conscious of what they conceive to be the hierarchy of rank in drawing ability. (p. 182)

Generally, children's ability to perceive and appreciate various kinds of art is more advanced than their ability to create it (Chapman, 1985).

Most art educators today avoid making rigid, age-level distinctions because of the variability of students' work at any age level and in any given group (Chapman, 1985). Also, there is great variability in individual students' work (Wilson & Wilson, 1981). One part of a student's picture may reflect an "advanced" level of development, while another part seems almost "regressive." All of the strategies of depiction (discussed above) do not move forward in concert at predictable rates or ages for most individuals because they attend to different visual features, nuances, subjects, and problems each time they create a visual image.

I recall a talented, articulate first grader. We had been studying shapes and how little shapes can be parts of bigger shapes or objects. In previous art lessons, we also had explored how one could alter ordinary geometric shapes (circle, square, etc.) to create more interesting shapes and objects in art. Each student was given an identical, precut rectangle to alter in some way (through cutting, tearing, or embellishing) and then develop as a "main idea" or important focal point in a picture (representational) or design (nonrepresentational).

While some students responded rather stereotypically (the bottom of a house, a box), others portrayed aerial views of objects, divided the shape into

interesting components, or oriented the shape in an interesting way on the page so that it was not parallel to the paper's edges. But John's response was unique in another way. He used the rectangle to develop a wagon crowded with "noisy" farm animals. He told me that he got his idea from our music class, which immediately preceded art, relating his experiences across subjects and undaunted by the requirements of producing such a visual image where others might fear to tread.

We had learned a song, "I've a wagon full of chickens who are cackling and squawking . . . ," examined musical and nonmusical sounds, and learned a long, verbal memory sequence, adding more verses and animal sounds. Also, we wondered aloud if the farmer would think this "symphony" of sounds behind him in his wagon were "noise" or "music to his ears," leaving this open to interpretation. We then had the difficult task of determining if the song we learned about sounds was music--interesting to hear, learn, sing, and embellish--or "just noise," and if sounds needed words or lyrics to be music.

In art, John's graphic response was well advanced in relation to the skills of his peers. He demonstrated three-dimensional perspective (foreground, middle ground, and background as well as perspective on the wagon and the overlapping of shapes and objects), accurate equivalents of animals (size relationships, details, shapes), and shading (not coloring). That John elected to depict a wagon was not particularly surprising to me because his favorite graphic subject was vehicles--any kind, and in great detail. However, he created a stereotypical sun with rays wedged in the top corner of the page, whereas in his other landscape drawings he usually preferred fading sunsets. I marveled aloud at various aspects of his picture and then queried gently about the sun: "And, I see the sun there. . . . " With no other prompt, but sensing bias in my comment, he shrugged and replied matter-of-factly, "The sun's not the important part of my picture. It's the wagon and these yapping, squawking

animals! And . . . the creaky wooden wheels. And, I don't think the farmer thought it was music!"

The teacher is in the privileged position of systematically exploring individual interests, artistic development, and thinking where more can be learned about students from students than from sterile developmental schemes. From John, I learned that sometimes students make interesting connections across arbitrary subject-matter lines and school schedules when we are remiss in helping students make connections. An important connection I ignored as the teacher were themes across both lessons related to expressive choice, transformation, embellishment, and the aesthetic question of "What (or when) is art or music?" John reminded me of the point of the art lesson (as well as one of the most important points of the music lesson) which I had forgotten, awed by his graphic prowess and delighted with the residue of a music lesson in an art lesson. Also, he reminded me of my potential as an adult to be biased in favor of realistic representation, particularly when a student demonstrates remarkable graphic skill for his age.

To summarize development of artistic ability in production, Chapman (1985) reminds us:

> Within any group of students you are likely to find a range of skills. . . . Teachers will also find different levels of interest and skills in creating abstract designs, imaginative or expressive art and using two- and three-dimensional media. . . . Children differ in their rates and levels of development in each area of art. (p. x)

The disappointing aspect of research in children's production is that most of it has focused on drawing with little attention to skills in other media (printmaking, painting, textiles) or three-dimensional production (clay, construction, sculpture, etc.).

With regard to production/performance in music, research has focused primarily on students' discrimination skills of discrete phenomena such as "pitch" or auditory memory. The typical elementary music program is structured on

learning songs by imitation and practice, exploring simple musical instruments, learning some of the elements and principles of music (pitch, rhythm, notation), and by third and fourth grades (usually), learning to sing or play in harmony after experiencing singing or playing in rounds. By the middle and upper grades, students usually learn more songs through vocal or instrumental programs and how to read musical notation.

Serafine (1986) has summarized research on musical development so well that I quote her at length. She cautions that since her summary of research is gleaned from such a small data base (because of the nature of research in music education), one should not overgeneralize the findings. Further, the following principles reflect a Piagetian bias because much of the research and tests developed and utilized in music research have relied on this framework:

> 1. Symbolic skills, such as those involved in "real" notation or any written depiction of music, seem best acquired after the period of concrete operations has begun--after the age of 7 or 8 years.
>
> 2. Very abstract musical-cognitive processes, such as complex transformations, forms of abstraction, and hierarchic structuring in music, do not seem to be acquired until late childhood--about the age of 10 or 11 years.
>
> 3. Surprisingly, skills related to the temporal dimensions of music (succession and simultaneity) do not necessarily precede the above, but seem to be accessible to children at roughly the same age. By the age of 10 or 11 years, most children can be expected to perceive, understand, and remember successive chains of melodic fragments and . . . simultaneous combinations.
>
> 4. Similarly, the coordination of two or more musical parameters (melody, harmony, rhythm, etc.) seems to be available to children during the period of concrete operations but not before. For example, musical "conservation" skills such as recognizing the same melody when it occurs with different tempo, timbre, or harmony, seem to be most accessible during this period.
>
> 5. Simple discriminations--even fine discriminations of pitch (high-low), dynamics (loud-soft), and duration (long-short), seem to be accessible to children at any age, even before 5 years.
>
> 6. The understanding of global, large-scale aspects of musical composition, such as (a) overall style and form and (b) areas of modulation probably is not acquired until after the elementary school years--about age 12 or later. (p. 336-337)

Serafine (1986) proposes that performance be integrated with creative composition, both of which precede critical listening. Further, she suggests that very young children have the capacity to compose music and that construction, rather than the reproduction of adults' music, ought to be the primary focus of instruction in order to learn the above principles. She cautions us that "developmental sequence" can be interpreted much too rigidly. For example:

> It is a mistake to assume that the requirements of a developmental sequence have been met when children are put through a lockstep sequence of learning pitch discriminations first, then the names of notes, then how to read notation, play an instrument, and so on. Such a sequence is a breakdown of material (and noncognitive materials at that . . .) rather than a sequence of how children acquire material. (p. 337)

Serafine (1986) proposes that there are two kinds of important cognitive processes in learning music: temporal and abstract. Temporal processes deal with the immediate experience of succession and simultaneity of sound. According to research, children under eight years old are not apt to show evidence of perceptual or memory ability in the temporal dimensions of timbre (quality of sounds), melody, and rhythm. However, recognizing more global qualities such as timbre seems to develop earlier than the other abilities. Abstract processes involve removing some aspect of a musical event from its original context, retaining it, and then applying it elsewhere in composition. These processes also entail transformation, hierarchic structuring, and understanding closure versus movement, all in terms of understanding and recreating musical style.

Other music educators utilize a Brunerian scheme to examine student cognition and musical abilities and to design instruction (Meske, Andress, Pautz, & Willman, 1988). Applying Bruner's "generative" theory, musical learning involves four components: the musical concept to be learned (i.e., pitch, duration, dynamics); a musical example that embodies the concept; a musical behavior (performing, describing, creating); and a conceptual "mode" or stages in

which to engage in concept development in sequence. These stages or sequences of learning involve the enactive, ikonic, and symbolic modes.

The enactive mode involves the learner in associating the concept through example, observation, manipulation, or experimentation. Understanding is "acted out" directly or nonverbally. The ikonic mode requires the learner to internalize musical sound images that can be recalled, understanding and demonstrating this understanding through pictorial representations that "look like" the sounds or utilize verbal imagery (i.e., smooth-jerky). The symbolic mode requires the learner to build upon previous enactive and ikonic experiences until verbal and musical symbols become associated with the sound. Meske et al. (1988) recognize that students may be functioning at different stages of this cycle simultaneously, particularly in terms of learning to read music.

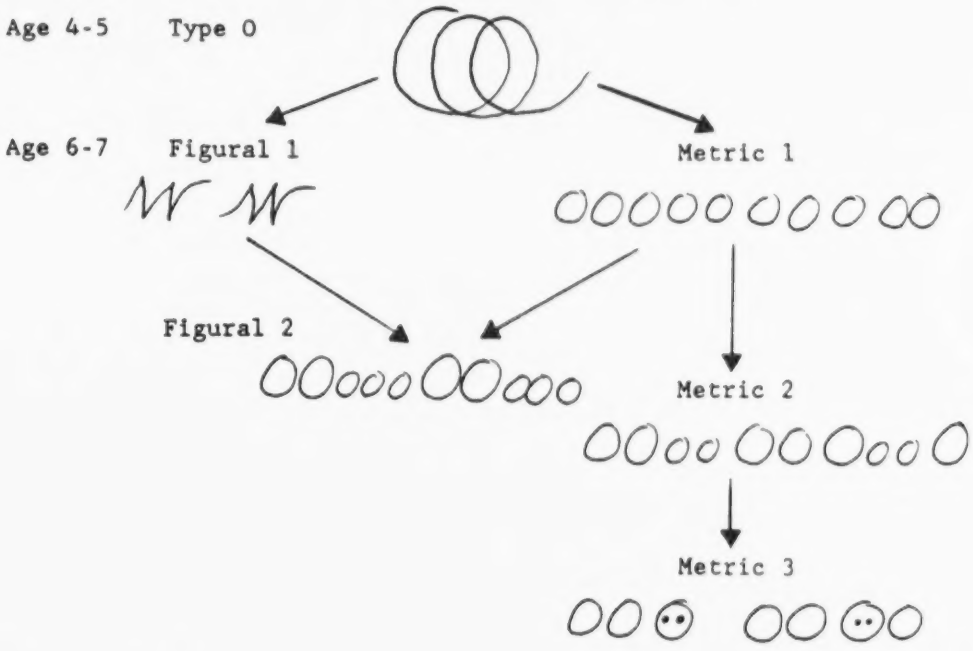
Some very interesting work by Bamburger (1980) explores how students' drawings of simple rhythms reveal their developmental understanding of rhythm as well as their potential misconceptions. She identified three kinds of drawings or interpretations of rhythm: figural, metric, and hybrid. Students aged eight or older, as well as musically untrained adults, can spontaneously make fully developed figural drawings of rhythm, although the metric accuracy of such may be distorted and undistinguished. Fully developed metric drawings are made almost solely by those trained to read standard musical notation, and these kinds of notations more accurately reflect what is occurring rhythmically in the music. The following rhyme can be translated rhythmically as follows:

Three, four shut the door; five, six pick up sticks

As early as age six or seven, some students translated this rhythm into a figural image while others translated it into a metric image with each sound differentiated. For example, in the figural drawing, each stroke within the

figure corresponds to each sound. In the metric drawing, each circle corresponds to each sound. (The phrase is repeated in the examples of each.)

When observing children imitate the rhythm while drawing, most imitated the sounds accurately by movement and pause, but the remaining graphic traces of figural drawers left little clue as to the actual rhythm. Figural drawers grouped actions into large gestures and "played out" the rhythm graphically on paper, while metric drawers focused more on counting and dividing discrete events. Older metric drawers were more inclined to group sounds into schemes and exhibit the duration of each event with reference to an unchanging, fixed, steady beat or meter. This metric response reflects a more accurate understanding of the rhythmic event and the multiple, simultaneous features embedded in the rhythm. It corresponds more accurately to a sense of meter (or steady beat) and the distinction between quarter and eighth notes.



Developmental Trends in Perception and Response

By "perception" and "response," I am referring to what students seem to perceive or attend to when viewing an art object or listening to a musical piece and how they respond to the formal or aesthetic qualities or features of these objects. When we view a sculpture or listen to a musical piece for its aesthetic properties, we are looking or listening "in different ways than when we look for [their literal], moral or practical implications or consequences" (Lanier, 1983, p. 83). Aesthetic perception and response are governed by this different sort of attention and intention. Most of the research exploring students' aesthetic perception and response has examined children's "natural" responses to art objects or decontextualized musical sounds, with little intervention aimed at changing children's responses. This is because the study of student responses or judgments related to art forms is a fairly recent trend. As the agenda in art and music education shifts more toward aesthetics, art/music criticism, and cognition, more interest in perception and response is reflected in the research.

Because most of the findings presented in the music section related as much to perception and response as to performance or production, I will turn to recent research in developmental trends related to student responses to art objects/forms. Much of this research has emerged from Harvard's Project Zero (Perkins & Gardner, 1974), initiated during the 60s as an aesthetic education research facility. A series of empirical studies conducted over several years documents children's sensitivity to paintings, their conceptions of the arts, the development of critical judgment, and perception and response to works of art. Ives (1984), Parsons (1987), and others also have investigated these dimensions of cognition and learning from a developmental perspective.

Ahmad's (1985) literature review on the characteristics of children's art preferences can be summarized as follows: Children are most influenced by the

subject matter of art objects, and the preferences vary with age and generally reflect a child's primary interest at that time. As mentioned earlier, clarity and well-defined representation are basic to this interest. Younger children prefer simple, familiar subject matter; older students prefer more complex, novel subject matter. Younger students prefer bright colors and are less apt to attend to the more subtle, expressive features in art objects.

Gardner, Howard, and Perkins (1974) claim that preadolescent children exhibit some spontaneous awareness that subject matter is not a reliable guide for determining style; they attend more to the dense and subtle aspects of the object and base judgments less on the literal aspects of the work (noting expressiveness, texture, overall composition, etc.). Children 7-10 years old can sort reproductions on the basis of style and do seem to perceive at least some of the subtle and multiple features of works. And, Marschalek's (1983) review of the literature on cognitive processes related to perception, attention, and memory suggest that training and practice can accelerate the use of these skills by young children even though skills improve gradually with maturation.

Ives (1984) suggests that representational ability is not a prerequisite for expressive ability, but children tend to pass through differentiated stages to detect or depict abstract expression. For example, literal representations are used and recognizable before metaphorical forms of expression: A literal representation would be a crying face with tears to express sadness; a metaphorical representation would be the use of abstraction by choice of content. When students use or recognize metaphorical expressive features, they do so by abstraction, which includes nonrepresentational features such as dark colors or drooping lines to represent sadness. Or, they may use or recognize content metaphorically: A barren tree or broken swing represents sadness. The literal stage is identified by Ives as predominant around the ages of seven

through nine, whether in responding to the expressive qualities of art or producing such.

Parson's (1987) work is interesting in that he uses constructs from Kohlberg (moral development) as well as Piaget and aesthetic theory to explore students' cognitive development and response to art forms. He identifies five stages of aesthetic development without identifying strict age delineations because accounts and responses depend greatly upon the number and quality of encounters one has had with art forms. "Each stage is shaped by a central new insight, and this insight centers in each case on a different topic" (p. 16). However, Parsons suggests that most elementary youngsters are operating at Stage 2. Table 2 (p. 16) illustrates what is "most important" to students in each particular stage, indicated by large double "Xs".

Table 2

Parson's Stages of Aesthetic Development

	Subject Matter	Expression	Medium, form, style	Judgment
Stage 2	XX	x	x	x
Stage 3	x	XX	x	x
Stage 4		x	XX	x
Stage 5				XX

Stage 1's theme (not on original table) is *favoritism* and is characteristic of responses made by preschool children, including kindergartners. If we were to insert Stage 1 on Parson's table, the "XX"s would be under a category called "Color" (preceding Subject Matter), and an "x" would be under the category of Subject Matter. There is intuitive delight in most paintings, a

strong attraction to color, and a "freewheeling associative response to subject matter" (Parsons, 1987, p. 22). There is little awareness of the point of view of others, and it doesn't matter what paintings represent, or if they are nonrepresentational. Judging a painting is the same as liking it.

Stage 2's theme is *beauty and realism*. Most children 6-12 years of age represent this stage, according to Parsons (1987). The dominant concern is with the subject of the painting, and children believe the purpose of a painting is to represent something. Representational or "realistic" paintings are perceived more meaningful than nonrepresentational ones, and a painting is judged "better" if its subject is attractive. Beauty, realism, and technical skill are perceived as objective criteria for judgment. Implicitly, the viewpoint of other people is acknowledged, but the above preferences influence judgment.

Stage 3's theme is that of *expression*, and this stage typically is exhibited somewhat in the 12+ age category. The beauty of subject matter becomes secondary to that which is expressed. "Creativity, originality, depth of feeling are newly appreciated" (Parsons, 1987, p. 23). Further, there is "skepticism about the value of talking about painting, and about the possibility of objective judgments, because the important criterion remains the quality of some individually felt experience" (p. 23). This stage is an advance because it rests on a new awareness of the "interiority of the experience of others" (p. 23). Beauty of the subject, a realistic style, or the technical skill of the artist become less relevant in the judgment of works. Students open themselves to a wider range of works and the expressive qualities of these.

Stage 4's theme is *style and form*. There is a shift toward recognizing the social significance of a painting as well as its individual achievement, that is, recognizing that a painting exists within a tradition, that a number of people have talked about it, and that its meaning "is constituted by what

can be discursively said by the group about it" (Parsons, 1987, p. 24), which is more than can be understood inwardly by an individual. This insight allows students to explore the way the medium was handled and its stylistic relationship to other works. Significance is found in the medium, form, and style of works, and all of these aspects are recognized as public dimensions that have some bearing on the meaning of works.

Stage 5's theme is that of *autonomy*. "The central insight here is that the individual must judge the concepts and values with which the tradition constructs the meanings of works of art. These values change with history and must be continually readjusted to fit contemporary circumstances" (Parsons, 1987, p. 25). In other words, one recognizes that he or she is both individually and socially responsible for reexamining accepted views, and this requires serious personal reflection and dialogue with others. "Art is valued as a way of raising questions rather than as transmitting truths" (p. 26). This requires one to transcend the point of view of one's culture.

Parsons (1987) cautions readers that his work represents the advancement of hypotheses, not the testing of these. However, his work is comprehensive, covering 10 years of over 300 in-depth, semistructured interviews with people ranging from kindergartners to art professors in examining at least eight paintings that are diverse in style. The description of his methodology is not detailed and there is no explicit attention to the educational implications or applications of these ideas for curriculum or teaching, as is the case with most research conducted in the area of students' aesthetic response and judgment. In fact, Rush and Lovano-Kerr (1982) have faulted the Project Zero work on this same account. Nevertheless, Parson's work is rich with participant quotes and exemplars, and his interpretive explorations are persuasive because of the way in which he has drawn from various theoretical frameworks and synthesized

across fields. Thus, the stages and descriptive features of these that he posits will be worth the attention and exploration of researchers and educators alike.

The reader must determine the significance of developmentally focused research and its contribution to our understanding of what children understand and can do in art and music. Criticism of this research focus most often faults questionable research methods (sample size, subject selection, i.e., nonrandom or biased sample; vagueness in description of methods and analyses); overgeneralizing the findings either in researchers' conclusions or in the misinterpretation and uncritical or selective application of these findings by consumers of this research; ignoring contextual realities such as the features and ecology of the classroom setting; ignoring implications for curriculum and teaching or research conducted by educational researchers (rather than other psychologists, theoreticians, etc. outside of school settings); and adhering to Piagetian constructs when weaknesses and contrary evidence have been identified in empirical research.

Summary

There appear to be some common themes across these two subject areas regarding student development that are worth our attention. One question is, how much of is this commonality is due to similar theoretical frameworks and interests in a 20- to 30-year tradition of developmentalism across these disciplines? Most developmentalist researchers claim no steadfast rules or absolute cutoffs by exact age. Almost all acknowledge that individuals exhibit great variability within a stage, and that individuals within a group of age-level peers exhibit great variability. Thus, if we were to hold these findings viable and persuasive in the field of education, then it is obvious that a teacher needs an understanding of child development in the arts beyond one's

specific grade-level assignment because variability and student diversity are certain known features of classrooms. Another question is, is the developmental perspective attractive to educators because our schools are structured by age and grade level? Basing curriculum and instruction on such findings--however loosely--might make the complex task of teaching diverse learners or developing school curriculum seem less complex and forbidding.

We must speculate what these findings mean or imply in terms of teaching for understanding and critical thinking in the arts at the elementary level. Most of the findings across art and music relating to what I and others have defined as "critical thinking" suggest that we ought not bother attending to critical thinking until after the elementary grades. In both art and music, researchers claim that young students (at least until around age 10 or so) have difficulty discerning expressive features, attending to art objects and works for their stylistic properties and meaning, judging works critically and objectively, and addressing questions related to the arts as human constructions that are created and experienced by others in a social context (which also imposes meaning on these endeavors).

Fortunately, there is increasing empirical evidence to suggest that youngsters are capable of perceiving and attending to qualities of art and musical forms before they are able to produce such qualities in their own art or musical compositions. Thus, we know that even young students have the capacity to perceive and respond to works. There is ample evidence (at least in art) that students adopt and use rules and strategies in producing art, and there is evidence that cognitive processes can be developed and nurtured through focused instruction and practice. These strategies could be made more explicit to both students and teachers and enhanced if during planning, production, or immediately following production, students were encouraged to engage in reflection and metacognitive talk.

There is evidence from several research perspectives that most children generally enjoy engaging in art and music, whether making or responding to images and sounds, and that the number and quality of these encounters can have a significant impact on students' depth of understanding and appreciation of art and music as ways of knowing, and their lifelong learning and participation in the arts. Also, there is evidence that children in the upper elementary grades may lose interest in art and music when the teaching of these subjects focuses on production, realistic representation, and imitation, and students learn to assess their efforts and abilities only in these terms. Thus, curriculum and teaching could be reoriented in ways that allow students to engage in other forms of arts learning (fantasy or abstraction, sociocultural dimensions of art and music, cooperative activities, criticism, aesthetics, etc.). A different focus might sustain children's positive disposition toward the arts rather than diminish it.

There is evidence to suggest that some forms of classroom discourse and pedagogical strategies enhance students' depth of understanding of subject matter better than traditional pedagogical strategies (lecture, demonstration, rote drill). Most of this evidence can be derived from research in mathematics and science learning. However, Koroscik's (1988) experimental work related to fostering understanding and critical thinking in adult responses to art indicates that certain sequences of questions are more effective in fostering understanding than others. Recent research focused on teachers' pedagogical and subject-matter knowledge suggests teachers need an in-depth understanding and love of the subjects they teach and the disposition and skill to explore their students' understanding of subject matter systematically. Classroom dialogue is socratic, negotiated, and exploratory in character; fewer topics are "covered," and these are explored in depth; and, students are encouraged to attend to their own thinking and the ways in which they think about concepts, perceive

relationships among concepts, or how they solve intellectual and technical problems through reflective exploration and application (metacognition).

There is evidence that most adults who enjoy the arts and who are aesthetically "literate" in these areas do not engage in art and music creation or production, but in other ways of knowing and appreciating these disciplines. They learned about these dimensions of knowing informally, tacitly, or through formal educational encounters. Some individuals helped them experience the arts in ways other than production and performance. They helped them learn what to notice or attend to and the ways in which one might make sense of one's encounters.

Finally, we know from research that the primary emphasis in elementary art and music instruction is on performance and production, with little attention to other significant ways in which students might engage in arts learning. If creative and critical problem solving, generating and testing hypotheses, metacognition, thoughtful reflection, and critique are important dimensions of arts learning, it will be difficult for students to engage in such learning when all art and musical outcomes in the enacted curriculum (that which is actually taught) are defined narrowly as imitation and production, and all products or songs are created by, derived from, and selected by adults. Even if one were not prepared to relinquish a production-performance focus, one could reconceive this focus in ways that would promote more active knowledge construction on the part of students, that is, problem identification, selection, and solving; reflection focused on metacognition and one's feelings while engaged in production, performance, viewing, or listening; making private or tacit decisions and judgments public through discussion, joint inquiry, or cooperative activities; improvisation; and making the multiple ways of knowing subject matter more explicit to students, all of which would appear to contribute to a deeper understanding of these subjects and students' creative/critical thinking.

My sense is that such a reorientation in production/performance would require sustained and supportive staff development where teachers could experience this orientation to arts knowledge, for themselves--firsthand as learners. Pedagogical strategies, implications, and applications need to be ignored for a period of time to allow teachers to experience intensive learning in the arts. Such a unique approach to inservice education is provided by the Lincoln Center Institute for the Performing Arts in New York (May, 1978). Perhaps one clue to the sustained success of Lincoln Center's efforts is its absolute suspension of pedagogical talk throughout its intensive summer session and the immersion of teachers and principals into a few selected works (plays, musical compositions and performances, dance). This is accomplished through active participation, multiple exposure to works, and mixed, small-group team leaders who are performing arts experts (dancers, choreographers, actors, directors, musicians, composers, etc.). These experts help participants gain entry into the structures and subtle features of works in order to understand how and why these works may have been created in the ways they were, how these can be interpreted (by performers as well as audiences), and in what ways these works or performances may be valued.

Pedagogy is discouraged as a topic of concern or discussion until after this intense summer experience (which lasts two to three weeks); involves full days and several evenings; and requires reading, writing, improvisation, and other forms of assignments. Follow-up support and resources are pedagogically focused and extensive in terms of the number of teachers and students reached and the depth and quality of their encounters with a few selected works each year. Further, most of the arts experts are available preceding and during the school year to help teachers plan, implement, teach, and evaluate student learning with regard to the same or similar works. Finally, Lincoln Center promotes aesthetic literacy on several accounts, particularly by preferring that its

participants not be specialists in the arts. In order to attend the Institute, the principal and at least three teachers from a school must participate.

Thus, interest in the arts and the exploration of pedagogical applications seem less likely to wane in the supportive environment of a shared experience, sustained resources and assistance from the arts community, and a financial commitment from the school and its district to implement this learning in the school context. The most striking and paradoxical feature of Lincoln Center's approach to teacher education in comparison to most forms of inservice and staff development is the absence of pedagogical talk and the refusal of the Institute staff to engage in application questions related to teaching until after the intensive summer immersion. Participants first are regarded as intelligent adult learners who are invited to learn more about the arts by immersing themselves energetically, emotionally, and intellectually in selected art forms and works with the wisdom, enthusiasm, guidance, and support of arts experts. Much later, pedagogical applications are considered intensively and cooperatively.

I also believe that in schools, what we wish to teach in art and music requires more time, creative assignments beyond regular in-class instruction (individual and group assignments), a schedule that minimizes lengthy gaps between instructional episodes, or meaningful ways in which themes across subjects might be explored viably without resorting to recreational approaches to interdisciplinary teaching or learning. The greatest obstacle to any of the above suggestions may be an overriding concern of teachers about covering multiple topics, songs, or media to appeal to youngsters' expectations and interests rather than exploring fewer topics, concepts, or media in depth. This is understandable when the time allotted to the arts is so small and students' opportunities to learn art and music (no matter the focus) are so miniscule. A

teacher may compensate or "make up for lost time" by using a "salad bar" approach to the selection of content, media, or activities (May, 1987b).

As an art and music teacher, I was fortunate to work in an elementary school where the principal and staff valued arts learning, allotted more time per week to these subjects, participated in flexible scheduling and interdisciplinary team teaching when we deemed such appropriate and meaningful, and demonstrated interest in what students learned and produced in art and music. I can claim some responsibility for this collective viewpoint because I worked very hard at informally sharing with colleagues what students could learn in art and music; how these experiences were fundamental ways of knowing; and how some concepts, themes, or processes in arts learning sometimes relate to learning in other subjects (and vice versa). As a result of this shared vision among faculty and detailed progress reports to parents, parents also came to appreciate and better understand what children could learn in art and music. (For example, I had just as many appointments after school and during parent-teacher conferences as math and reading teachers.)

I share the above information for two reasons: First, my school was quite diverse in student population in terms of ethnicity, SES, and special needs, yet this diversity was not perceived by the staff as a particularly menacing obstacle to meaningful teaching and learning for all students. Secondly, a school's faculty and staff can agree upon and choose a more meaningful and challenging curriculum than is stressed in state and local policies that emphasize minimum competencies and skills in "the basics" or recommend minimal time allotments to various subjects per week. To interpret such policies more liberally, faculty must have an informed idea of the possibilities--of more viable alternatives, and why these alternatives are valued by this particular school and its staff over options that stress only minimal outcomes. Acting upon this vision occurs through much in-school deliberation and a sustained examination of a

school's philosophy, the strengths and expertise of its staff, and the staff's perception of students and what they need to know and experience in the school's total curriculum.

People other than art and music educators also value the arts as vital and empowering ways of knowing--about ourselves, each other, and our world. The word "discipline" hardly comes to mind when thinking about the arts and what learning about and in them engenders and teaches. The language of the arts is not a secret code to be cracked--one of discrete symbols, sounds, or utterances to be encoded and decoded mechanically and lifelessly with "right answers." Students cannot be reprogrammed or debugged by taking away their crayons, jump-rope chants, boom boxes, rhythmic pencil taps, and informal understandings. These are the existing lifelines to the arts, ourselves, and each other. These tenuous lines must be made more explicit, grasped, and drawn closer together if we are to engage in more meaningful teaching and learning and engage in the world more fully. The language of the arts is one of human possibilities, and we have not yet explored these possibilities in any significant way in our schools, be these elementary schools or colleges of education.

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